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ON

OVARIAN DROPSY AND ASCITES:

THEIR

DIAGNOSIS AND TREATMENT.

ALSO ON

PROLAPSUS OF THE UTERUS.

1711

ON

OVARIAN DROPSY AND ASCITES:

THEIR DIAGNOSIS AND TREATMENT.

ALSO ON

PROLAPSUS OF THE UTERUS.

BY

RICHARD EPPS, M.D.(Cl.),
MEMBER OF THE ROYAL COLLEGE OF SURGEONS.

With Cases and Illustrations.

LONDON: SIMPKIN, MARSHALL, & CO.,
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1875

TO

DR GEORGES DIEULAFOY.

TO WHOM CAN I MORE APPROPRIATELY DEDICATE A WORK ON
ONE OF THE NUMEROUS PRACTICAL APPLICATIONS OF
PNEUMATIC ASPIRATION THAN TO ITS INVENTOR?

THE AUTHOR.

PREFACE.

THE diseases treated of in this work, have certain phases demanding other treatment than what the pure physician can afford. In both comes a time when something operative must be done. If the physician persist in his treatment for too long a time, it may happen, and often has happened, that the relief—imperatively needed at some time or other—is obtained too late. Impulsive action on the part of the medical practitioner is, of course, blameworthy; but so are unreadiness and procrastination. It would be hard to say which does the more harm in surgical practice. Every practitioner of experience must remember cases, where the death of the patient—immediate or remote—was due to indecision at a critical period. Of few diseases perhaps is this more true than of those under consideration. Speaking within my own experience, I could, without much difficulty, reckon up fully a dozen cases, where the patient's chance of life has been thus sacrificed.

A brief resumé of the table of contents will show what the object of the present work is. The beginning

114416

is devoted to a brief consideration of the different kinds of dropsies. The three next chapters are upon the pathology and diagnosis of *Encysted Dropsy of the Ovary* in particular. Thereafter comes a short one upon the diagnosis of dropsy of the peritoneum.

The sixth chapter is devoted to the consideration of *Ovariotomy.* I have explained there what I think are the objections to that operation.

The succeeding chapter is both a long and an important one. It treats of tapping, in cases of encysted and peritoneal dropsy, as usually practised, and of progressive aspiratory tapping; the latter as initiated by Dieulafoy, and practised in these cases by myself. A chapter has been added upon bearing-down and prolapsus of the womb, and the use of pessaries.

There are in addition incidental hints upon treatment and the notes of fifteen cases of ovarian, peritoneal, and spinal dropsy and prolapsus uteri.

The Author has much pleasure in expressing his obligations to Mr Harraden and others, for the care and skill bestowed upon the illustrations.

RICHARD EPPS.

November 1875.

89 Great Russell Street,
Bloomsbury Square,
London.

CONTENTS.

CHAPTER I.

PAGE

On the Different Dropsies. Ascites: Hydropericarditis: Dropsy of a Joint; of the Spine; of the Testicle; of the Brain; of the Cellular Tissue; of the Uterus. Hydrometra. Hæmatometra. Ovarian Dropsy. Symptomatic Dropsy. Kidney Stimulation. Action and Reaction. Temporary Reaction serviceable. Stricture. A Surgical Authority on Kidney Stimulation, - - 13–15

CHAPTER II.

Encysted Dropsy of the Ovary. Introductory Remarks. Plan of this Work. Importance of Diagnosis. Risks of Ovariotomy. Women's Special Hospitals. General Ignorance about Ovariotomy. Auri Sacra Fames, - 16–18

CHAPTER III.

The Pathology of Ovarian Disease. Encysted Dropsy of the Ovary: Watson's and I. B. Brown's Definitions; Origin. Graafian Vesicles and Ova. Origin of other Tumours: Goitre; Wens; Enlarged Prostate. Duration of Growth. Contents. Reversal of Aspiratory Current. Unvarying Vacuum. Size of Ovarian Tumours: their Walls. The Peritoneum and the Ordinary Tapping Operation, and Dangers of the latter, - - 19–26

CHAPTER IV.

Diagnosis of Ovarian Tumours. Mistakes in Diagnosis. Amenorrhœa and Dropsy: Case. Spurious Enlargement. Case 1. Pregnancy and Dropsy. Signs of

PAGE
Pregnancy. Tactile Examinations. Gradual Changes during Pregnancy. Ballottement. Hæmatometra. Hydrometra: Case 2. Polypi. Moles. Uterine Sound. Ovarian and Uterine Tumours. Pneumatic Aspiration in Diagnosis. Abdominal Outline, - - 27–48

CHAPTER V.

Abdominal Dropsy or Ascites: Diagnosis, - - - 49-53

CHAPTER VI.

Ovariotomy: Is it a Justifiable Operation? Risk of Life. Published Cases. Unsuccessful Completed Ovariotomy. Surgical Fashions. Professional Opinion on the Merits of this Operation; its Increasing Frequency. The Fatality of Ovariotomy. Hospitals and Surgical Homes. Popular Medicines; Reaction. Erichsen on Ovariotomy. Gynæcologists and "Women Doctors." Dr Black. Unfortunate Ovariotomy: Case 3. Dr Robert Lee. Liston's Opinion. Works on Ovariotomy, - - - - - - - - - - 54–67

CHAPTER VII.

Paracentesis Abdominis and Pneumatic Aspiration. The Ordinary Tapping Operation; Objections; Dangers of. Vaginal Tapping and Drainage. Rectal Tapping. Boinet on Iodine Injections. Pneumatic Aspiration; Harmlessness of. Advantage of Confidence; Dr Dieulafoy on. Extracts. Universal Applications of Exploratory Aspiration. Aspirator used by the Author. Plate. Additions to; Air-tight Trocar and Canula; Quill-pen Canula; Syphon Tap. Action and Advantages of the above Aspirator. Unvarying and Varying Vacuums. Injections. Rack and Notch Aspirator. Author's Experience. Time no Object.

PAGE
Knowledge and Ability required. Exploratory Aspiration. Effects of Air on Shut Cavities. Precautions, 68–83

CHAPTER VIII.

Medicinal Treatment of Ovarian Disease. Intra-uterine Drainage: Case 4. Prevalent Medical Opinions on Medical Treatment. Specific Treatment, - - - 84–88

CHAPTER IX.

Concluding Remarks. Additional Remarks on Diagnosis; on Incision and Ovariotomy; on Tapping Instruments; on Exploratory Aspiration; on Care and on Tact; on the Advantages of Progressive Pneumatic Aspiration; Author's other Experience of it. Case (15.) of Spina Bifida, - - - - - - - - - 89–97

CHAPTER X.

Cases:—5. Case of Double Ovarian Tumour and Ascites. 6. Case of Repeated Cystitis, Ovaritis, Drainage *per intestinum.* 7. Case of Ovaritis and Peritonitis, Intra-uterine Drainage, and Cure; on two Occasions. 8. Case of Ovaritis. 9. Case of Ovarian Dropsy and Albuminuria, cured without Operation. 10. Case of Metritis and Ovaritis, and Intra-uterine Drainage. 11. Mrs J.'s Case of Multilocular Ovarian Encysted Tumour and Ascites, - - - - - 98–134

CHAPTER XI.

Some Remarks on Prolapsus Uteri, and on good and bad Pessaries. 12. Bad Case of Prolapsus. Effect of a good Pessary. 13. Prolapsus. Case that occurred to a late Colleague. 14. Bad Prolapsus. An Effective Pessary, 135-141

ILLUSTRATIONS.

PAGE

PLATE I.—Uterus and Appendages, ... 20

„ II.—Stomach, Uterus, and Bladder, ... 28

„ III.—Some Contents of the Female Pelvis, . . . 31

Caput Cæcum Coli, ... 34

„ IV.—Abdominal Regions, ... 47

„ V.—Pneumatic Aspirator, ... 69

Aspiratory Mounts, ... 78

„ VI.—Case V.—Ovarian Tumour and Dropsy, . . . 99

„ VII.—Case XI.—Aspiration of a Multilocular Tumour, . . 123

„ VIII.—My Couch, ... 129

CHAPTER I.

ON THE DIFFERENT DROPSIES.

Ascites: Hydropericarditis: Dropsy of a Joint; of the Spine; of the Testicle; of the Brain; of the Cellular Tissue; of the Uterus. Hydrometra. Hæmatometra. Ovarian Dropsy. Symptomatic Dropsy. Kidney Stimulation. Action and reaction. Temporary reaction serviceable. Stricture. A Surgical Authority on Kidney Stimulation.

DROPSY—derived from *ὕδωρ,* water, and *ὄψις,* appearance—or *hydrops,* is any abnormal collection of fluid. When the accumulation is in the belly, in the sac of the peritoneum, it constitutes *ascites.* Dropsy of the chest is *hydrothorax.* Dropsy of the heart is *hydropericarditis.* Then dropsy of a joint is called *hydrops articuli;* of the spine, *hydrorhachitis;** of the testicle, *hydrocele;* of the brain, *hydrocephalus.* *Œdema, anasarca,* or *general dropsy,* is dropsy of the interstitial and subcutaneous areolar tissue. Besides the above, there is *hydrometra,* which is dropsy of the womb proper, and *hæmatometra,* which is a distension of the same with blood. Last of all, there is what concerns us the most in this work: namely, encysted dropsy of one or other ovary. Dropsy is, I need hardly say, the last symptom of a great number of diseases—both acute and chronic. It is usual to speak of dropsy as if it were a disease *per se*, although it is not really so. Its ill repute is very great; so much so, that the friends of a patient with swelling—*e.g.*, say of the legs or belly—pronounced, by the medical attendant, to be dropsy, generally regard the latter's fate as pretty well sealed. I think, however, that this fatality is much greater than it should be; further, that it is, to a considerable extent, due to the kind of treatment practised, namely, kidney stimulation. Now, in a large proportion of cases, *this* is not at all what is needed. We should endeavour, in these cases, to relieve the patient—for a time, of course, of the fluid which oppresses, and will, if unrelieved, overwhelm him — by any channel rather than by the kidneys; it being but a symptom of reaction from over-stimulation of those organs. The capability of the kidney to secrete urine has deteriorated from long-continued over-action; it is not a case of mere sluggish action. The patient has mostly already grossly ill-treated himself (or herself) for the inaction. He knows by experience, or by general report, that certain things increase the urinary secretion. He has accordingly taken Hollands (*Anglice* gin) and water; or perhaps he has done a little *amateur* quacking with *nitre*. What the kidneys really want rather than stimulation in these cases, is to lie fallow, so as to have an opportunity of recovering their lost tone. One object in the removal of the urine by an extraurethral passage in a case of urinary retention, as by Mr Cocks's method—*per anum*, or by means of a fine hollow needle (pneumatically) in the hypogastrium, is no doubt to relieve the suffering of the patient. It does more than this, however. It allows the inflamed and strictured urethra to lie fallow, and thus to regain its normal condition of non-sensitiveness to the passage of the urine. *As long as the urethra is diseased, but no longer, its natural contents—the urine—act as a local irritant.* It is of course true that we cannot tap the urine off altogether above the kidneys that secrete it, but we can, on the other hand, do a great deal in the way of lessening their work, and so of amelioration. This latter is what stimulants and diuretics—*as stimulants and diuretics*—do not do, but the exact opposite. What medical man would propose to cure a rheumatico-gouty foot by *stimulants and exercise?* A living surgical writer—one, too, of the heroic type—remarks on the use of stimulants in cases of kidney irritation, that not only is gin and water commonly prescribed, but that it "is about as serviceable to the kidneys as a pair of spurs to a jaded horse—makes him travel for a time, but takes it out of him in the long-run." It is often said, this quotation reminds me, that medical practitioners give *now* comparatively small doses of medicine. This able writer and surgeon is scarcely, however, an example of moderation in this direction: *i.e.*, without the reader thinks forty-five-grain doses—the usual old-school dose is of course five—of iodide of potassium are moderate.

---

* A case of this rare affection, now under my care, is reported at page 93 of this work.

CHAPTER II.

ENCYSTED DROPSY OF THE OVARY.

Introductory Remarks. The Plan of this Work. Importance of Diagnosis. The risks of Ovariotomy. Women's Special Hospitals. General ignorance on the subject of Ovariotomy. Auri sacra fames.

THE beginning of this work is devoted, as shortly as is consistent with clearness and accuracy, to the characteristics and development of the two varieties of dropsy more especially under consideration.

The middle part is devoted to their diagnosis.

The last part is devoted to the answering of the question of, What is the best kind of treatment?

It is not necessary, nor is it my intention, to write an elaborate essay separately upon either disease. What I wish rather to do, is to describe the two comparatively, so that the practitioner will be able, or at all events more able than before, to distinguish between them—in fact, to be able to diagnose a case of pregnancy at middle age or ascites from one of ovarian dropsy, and *vice versa;* a feat which I know many practitioners can not accomplish.

If my work do nothing else than enable him to do this, it will protect him against the risk of tapping by mistake a distended bladder instead of an ovarian cyst; a mistake which is said to have been made by the illustrious John Hunter.

I hope also to be able to convince him that a woman suffering from ovarian dropsy need not be put in peril of her life to be cured of that often fatal disease: a peril—and not at all a remote one either, be it said—every woman incurs, who, with an ovarian tumour, passes through the portals of a certain special hospital,* one which is with others, more especially devoted to the operation of ovariotomy. Mr Wells, who states that he has performed the operation in more than 500 cases, acknowledges to a death-rate of over 25 per cent.; which is an exceptionally low one.

It is quite certain that ovariotomy is a very dangerous operation. Is it a necessary one? I believe that I should not be far wrong if I stated that it is quite possible that it will become, in the not distant future, a nearly obsolete, because an unnecessary, operation; if the plan of progressive aspiration and specific medicinal treatment, here advocated, or an improvement of the same, be received with favour by the profession. The process of extinction, no doubt, will take time; for a special operation like ovariotomy in that respect is like a "board of health." Neither the public nor the profession generally has, I believe, much idea of the frequency with which this operation is performed.

---

* It is unnecessary to allude further to these institutions. There are, I believe, not a few of them in London, New York, Paris, and elsewhere. Who was their first "promoter" *I* do not exactly know; I fancy, however, that the first one was the late I. B. Brown's, at Notting Hill. They have increased since then.

Ovariotomy is scarcely a "great operation" in the true signification of that phrase; *ex. gr.*, cutting for stone (lithotomy) is a really great operation, but hardly ovariotomy. It should not be forgotten that it is the risk to life that gives to ovariotomy very much of its importance as an operation. I was told, on good authority, some few years since, of a case in which it had been resolved upon, and a well-known ovariotomist, since dead, was applied to, to perform it. It seems that the husband of the lady thought at first that the fee specified was excessive (250 guineas, I think). The surgeon in question stated that the reason of his asking such a large fee was that the operation was frequently a fatal one, and that the opprobrium incurred in case of failure* —this was true at that time, although it is not so now —was so considerable, that he felt it to be only right to "recoup" himself proportionately for the risk.

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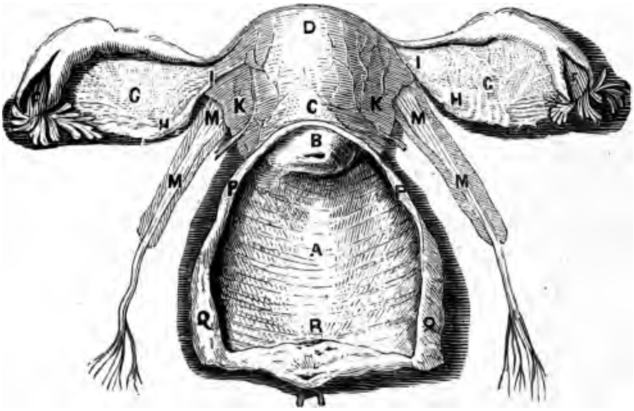
* *Id est*, the death of the patient.

PLATE I.



A, Vagina laid open.
B, Os Uteri.
C, Body of Uterus.
D, Fundus Uteri.

F, F, Fallopian Tubes.
G, G, H, H, The Ovaries and Broad Ligaments.
M, M, M, M, Round Ligaments.

CHAPTER III.

THE PATHOLOGY OF OVARIAN DISEASE.

Encysted Dropsy of the Ovary: Watson's and I. B. Brown's Definitions; Origin. Graafian Vesicles and Ova. Origin of other Tumours: Goitre: Wens; Enlarged Prostate. Duration of Growth. Contents. Reversal of the Aspiratory Current. Superiority of the unvarying Vacuum. Size of Ovarian Tumours. Their Walls: Three Layers. The Peritoneum and the usual Tapping Operation. Dangers of Ordinary Paracentesis Abdominis.

OVARIAN dropsy is the most common of all cystic tumours.

It is defined by Watson to be "the collection of fluid in one or more cells within the ovary, or in a serous cyst connected with the uterine appendages."* This definition, however, conveys no adequate idea of the possible growth of ovarian cysts. I. B. Brown's description is better. He says in his work: "The disease (ovarian dropsy) consists in the development and progressive growth from the ovary of one or more cysts, the lining membrane of which has the property of secreting fluid in oftentimes an almost indefinitely large quantity. Where but one cyst exists, the tumour is said to be unilocular; where several are found, it is multilocular."

---

* Watson's Practice of Physic, vol. ii. p. 399.

Now, as to the beginning of cystic disease. Not so much is known positively as could be wished. Practically this, however, is of little consequence; for a special practitioner is seldom consulted in these cases in the early stages of the disease; generally not until it has existed for months, if not years.

Simple ovarian cysts are mostly either abnormally developed Graafian vesicles, or of the latter's ova.

Although all these cysts do not begin in this way, still there can be no doubt that these vesicles do act as the parent cells in the majority of cases.

This bears out what we know occurs elsewhere. How many tumours are not abnormal developments of natural structures? Thus, bronchocele, or Derbyshire neck, is an abnormal development of the bronchial gland—a remnant of fœtal life; the encysted tumour of the scalp, known as a wen, was originally the duct of a fat gland. The third lobe (as it is erroneously called) of the prostate is really an hypertrophy of that body.

The growth of these cysts is very irregular. Sometimes the disease advances rapidly; so much so as even to exhaust the patient within two years of its recognition. In other cases it progresses more slowly, so that the patient lives—not very comfortably, certainly—for perhaps twenty, thirty, or more years afterwards. The case of Mrs ——* is an instance. The existence of the primary disease, in this instance, was recognised by my brother, the late Dr John Epps, when the patient was only eighteen years old. When I first operated (September 1874), she was fifty-two.

Contents of Ovarian Cysts.

These vary greatly, especially as to consistence. The quality of any contained fluid is a point, of course, of great importance in tapping; as if viscid or semi-solid, it will not pass through the canula. This applies to a certain extent to the use of the aspiratory needle, *but less so;* for viscid and thick purulent fluids will flow through an aspiratory canula or quill-pen trocar—such instruments as are described and shown in the chapter on *Pneumatic Aspiration.* Even if, unfortunately, nothing pass, not much harm is done. The patient has not been put in peril of her life, as with ovariotomy; not even as with the ordinary tapping operation; for evidently a large trocar and canula cannot be thrust into the peritoneum without the patient's running some risk of peritonitis.

The fluid of a unilocular cyst is, as a rule, clearer, less viscid, and, in a word, more fluent than that of a multilocular one.

The specific gravity of these clear and fluent cystic fluids is, as might be expected, low, occasionally as much so as 1003. The proportion of water is very large, and of coagulable matter very small. They have little or no smell or colour. The other, and far more common, class of contents is viscid; often very much so —varying from the consistence of syrup or white of egg, up to that of calves'-foot jelly. The smell is, at first, simply faint and sickly, although, in *pyogenetic* cases, it is more or less offensive.

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* Case V., at the end of this work.

In one of my Cases the fluid, at one time, as will be seen on reference to its report, was so impure, that the contained sulphureted hydrogen completely blackened the silver canula employed; *and yet this patient* made a good recovery.*

When the contents of a cyst are gelatinous, their colour is not uniform throughout. Often after tapping with an ordinary trocar and canula they alter, becoming purulent and offensive, as already stated. The albumen contained varies from the merest trace up to over 40 parts in the 1000. In some cases it is in sufficient quantity to make the fluid become quite "set" on boiling. Other ordinary ingredients are salts in small quantities, and cholestrine. The latter occurs in flakes, and is oftentimes troublesome; as it is apt to stop the flow of the fluid through the aspiratory needle (or canula), and to necessitate occasional reversals of the aspiratory current. This is an important practical point. Indeed, no aspirator which does not possess this reversing capability—viz., of being able, at a moment's notice, to be used as an injector instead of as a receiver—is a good one in these cases. Now, no instrument with a varying vacuum possesses this power; at least, not without the changing of one or more parts of the apparatus on each occasion of stoppage, and the possibility of having to do so several times during one operation. The unvarying vacuum instrument, like that shown in the plate, possesses this capability.

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* Case already referred to.

I need hardly say that these tumours differ greatly in size, both in different cases and at different times. They have been found in young subjects as merely small pedunculated cysts; whilst in advanced adult cases they have attained to an enormous size, so that the patient has measured round the belly 40 or 50 inches, and even more in one, viz., 53 inches. This last was in a case of mine own (See Cases).

There is a preparation in the Hunterian Museum* of a cyst, the circumference of which was rather more than four feet.

Now, as to the walls of these cysts. Their thickness varies in different cases. In some they are very thick, hard, and hypertrophied, even to the extent of an inch or more. More often, however, they are thin and soft — sometimes so thin that it appears to be entirely peritoneal. A cyst's wall consists of three layers—one an internal secreting coat, a middle or fibrous coat, and an external peritoneal coat. The close investment of a cyst by the peritoneum in these cases is of course very important as to the ordinary treatment by tapping. It is because of this that *paracentesis abdominis,* with a large trocar and canula, is a risky operation. It is for the same reason that, with a fine aspiratory needle, or a small-sized aspiratory canula, it is a safe one. The first instrument makes an ugly penetrating wound of considerable extent, by which the patient runs considerable risk of purulent infiltration into the peritoneum, and so of peritonitis, if not of pyæmia. The aspiratory needle also makes a penetrating wound, but of such a nature that it is not at all likely that the ill consequences above mentioned should ensue. This is not the place to enter into the question of the harmlessness of aspiratory punctures. That is gone into in another chapter—that on *Pneumatic Aspiration.*

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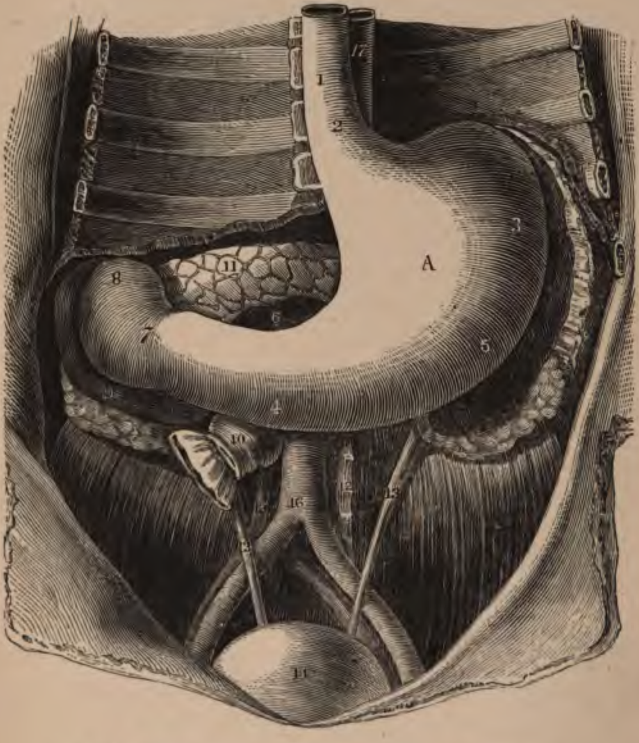
* Royal College of Surgeons, London.

PLATE II.



A, The Stomach.	11, Pancreas.
1, 2, Œsophagus,	13, 13, Ureters.
3, 4, 5, Great Curvature of the Stomach.	14, Bladder.
7, 8, Pylorus and Duodenum.	16, Abdominal Aorta

CHAPTER IV.

DIAGNOSIS OF OVARIAN TUMOURS.

Mistakes in Diagnosis. Amenorrhœa and Dropsy: Case. Spurious Enlargement. Case 1. *Pregnancy and Dropsy. Signs of Pregnancy. Tactile Examinations. Gradual Changes during Pregnancy. Ballottement. Hœmatometra. Hydrometra: Case* 2. *Polypi. Moles. Uterine Sound. Ovarian and Uterine Tumours. Pneumatic Aspiration in Diagnosis. Abdominal Outline.*

THE diagnosis of abdominal and pelvic tumours is a difficult matter. This will be seen at a glance, if we recollect what a number of possible enlargements—natural and diseased—there are. Also that most of these enlargements may be, and have been, mistaken for the disease which we have under consideration — ovarian tumour—and *vice versa*. The enlargements which are possible sources of error are, "pregnancy, ascites, tumours of the uterus and omentum, enlargements of the liver, kidney, spleen, and stomach, hydatids, hysterical tympanitis, fat in the omentum, stercoraceous accumulations, distension of the bladder, spinal curvature, abdominal and pelvic abscesses,"* and dropsy of the Fallopian tube. A goodly number. It would be almost impossible to go through the list, and I think hardly profitable. I shall content myself with pointing out as briefly as I can the points of difference between ovarian dropsy and those of the above-mentioned conditions, which have proved the most frequent causes of error in diagnosis.

---

* Erichsen, p. 1025.

Although dropsy of the Fallopian tube is not a common disease, it is an important one, for two reasons. Firstly, it is not easily distinguished from the dropsy of an ovarian cyst. In the second place, it cannot be extirpated by ovariotomy; an important point if that operation have been resolved on, in the event of a diagnosis being formed affirmative of ovarian tumour;—of much less importance, of course, if the practitioner prefer the aspiratory needle to the knife. The points of difference are concisely put by the writer just named, who says,* "This condition (dropsy of the Fallopian tube) may generally be recognised by the tumour being of moderate size, wholly fluid, having deep pelvic adhesions, displacing the uterus and bladder, and drawing the vagina into a pouch."

Extraordinary errors have been made in diagnosis in these cases—almost amusing, if it were not at least for their always serious consequences. Consider, for instance, the mistakes of Lizars; only discovered after he had in each case made an incision into the abdomen and opened the peritoneal sac, and had indeed thus performed, uselessly, and of course injuriously, a "*capital*" operation. A recent writer

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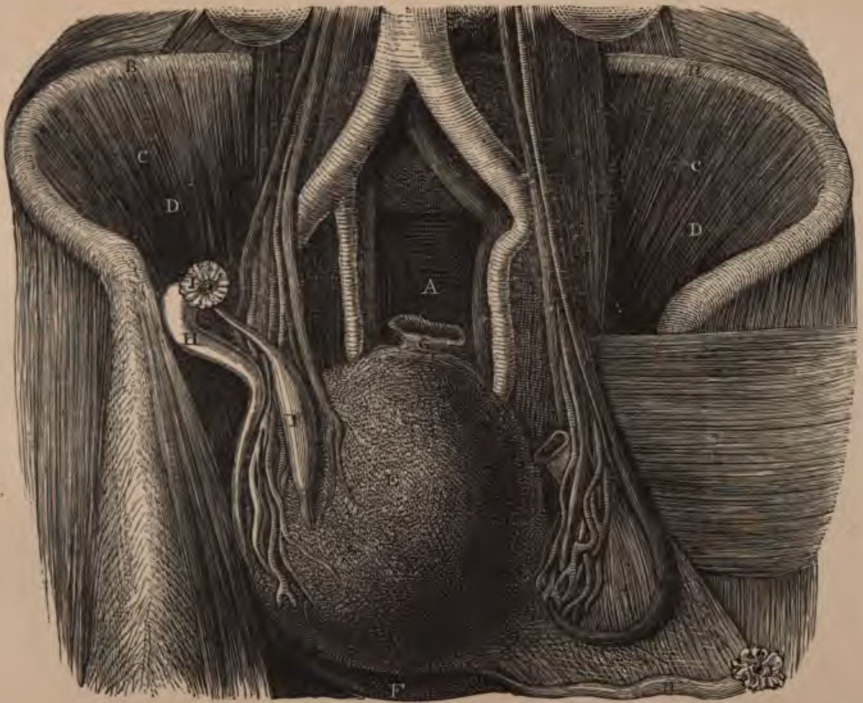
* *Op. cit.*, p. 1025.

PLATE III.



SOME CONTENTS OF THE FEMALE PELVIS.

states,* as the result of his researches, that "mistakes nearly identical have been repeatedly made in London practice." The same writer also shows that like mistakes have been made in Paris as well as in London. He quotes a case from a French journal,† in which a girl of 16 years of age was admitted into the Hôtel Dieu, for retention of urine, with ascitic enlargement of the abdomen from amenorrhœa, caused by sudden suppression of the menses 2½ years antecedently. This case was diagnosed by some of the chief gynæcological pathologists then in Paris to be variously pregnancy, ovarian dropsy, uterine tumour, fæcal accumulation, etc., etc. She was, however, alive and well twenty years later, although she had never had a family. This writer afterwards observes that "the case was enough to make stagger even men, as Hunter says, deservedly of the first reputation, but whose knowledge was only the knowledge of their day."‡

A thoroughly correct diagnosis in all cases is an impossibility. Mr T. S. Lee, writing in 1846, states that even then—that is to say, before the operation of ovariotomy was common—"six patients have had the abdominal wall opened, and no tumour was discovered." I shall have more to say on the subject of the mortality of ovariotomy presently, when I come to consider that operation separately.

We should always, when diagnosing disease of the abdominal—*i.e.*, pelvic—regions, remember the relative positions of the contained viscera. For instance, on the right side is the beginning of the great intestine, the *caput cæcum coli.* Now, I need not inform the professional reader that this is frequently the seat of disease. Its position in the right inguinal region is often a source of error in diagnosis.

---

* Wells on Diseases of the Ovaries, p. 119.

† Gazette Médicale de Paris for 1840, p. 347. ‡ Op. cit., p. 121.

An ovarian tumour may and has been mistaken for very different conditions of the abdominal and pelvic viscera. These latter have not been all uterine, neither have they been all abnormal. It is necessary to observe that the converse holds good, and that any of the conditions just hinted at may simulate ovarian disease. The most frequent cause of mistake in such cases is pregnancy. This is so for two or more reasons, although principally because of its being necessarily the most common cause of uterine enlargement. In many cases pregnancy is a *bona fide* cause of error. In the greater number, however, the patient herself "leads up" to the mistake. In many the patient is in a way to become a mother before she is a wife, and for shame's sake persists in the assertion that the enlargement is a diseased condition.* In others, and the exact opposite, she is a wife, perhaps past childbearing, and with ovarian dropsy, who is over-anxious to have a child, and so deceives herself.

There is a form of hysterical abdominal distension, which has been mistaken both for ovarian and other tumour and dropsy, and also for pregnancy. These are generally described as cases of hysterical tympanitis. Their true nature, however, is not either easily or clearly demonstrable. They should not, however, be mistaken for organic—diseased or natural—enlargements. Cases are recorded of these spurious enlargements, in which cutting operations have been attempted, and have of course failed. A case which was mistaken first for pregnancy, and then for tumour, occurred in my practice a few years since.

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* Instances are recorded in which the truth has only been owned to when the unfortunate patient has believed that a dangerous operation was imminent. Curiously enough, I have met with a case which was the exact opposite. The patient, who had been in service as a ladies' maid, had been married to a small tradesman for nine months. She sent for me a month before her accouchement; and again some twelve hours immediately before, when the os had somewhat dilated, and the head could be felt. This patient persisted in denying up to the very last that she "was or could be pregnant." This even to the accoucheur (Mr Engall) who delivered her. I have little doubt that she will never send for me again, for she professed to be insulted by my assurance to her of the facts.

CASE I.—*Hysterical Abdominal Enlargement.*

A married lady was brought from the north of England to consult me in 1869. She was 36 years of age, and had been married some nine years. The monthly period had stopped about ten months. She had become gradually—so it was said—larger, and for several months was supposed by her medical attendant at York, as well as by her husband, to be pregnant. After the lapse of ten months she was supposed to be suffering from some uterine disease accompanying premature cessation of the menses. It was then that her husband determined to bring her to London, to have further advice.

I saw her in the autumn of 1869. I can only speak generally of her state at that time, as I was not allowed to make a proper examination. I learnt that she was very weak and hysterical, and could endure but little exertion or standing. The enlargement was local, not extending much above the navel. There was no fluctuation.

She was under my care for quite two years. It was not, however, until nearly two years from the time of the first consultation that I learnt the true facts of the case, and what was the cause of her condition. It turned out that her husband suffered from congenital phymosis, which entirely prevented fruitful congress. I proposed to circumcise him, but he would not submit to the operation. Three or four months later, he wrote to me to state that, since seeing me, he had refrained from exercising altogether his marital rights, and that he was rejoiced to say his wife had entirely regained her health, as before marriage; that all the hysterical symptoms had departed, and that the abdominal enlargement had quite disappeared.

Let us consider in the first place upon the diagnosis of pregnancy. It is highly requisite evidently that we should be able to distinguish correctly between the natural and the diseased condition, and this without instrumental interference. Abortion has been repeatedly caused by injudicious exploratory examinations with the uterine sound. Besides this, it is necessary to remember that the two conditions—pregnancy and dropsy—may coexist.

We will take, in the first place, the signs of pregnancy. First of all, there is the stoppage of the menses. Then as to size, the abdominal increase of size (*i.e.*, the rotundity) of a pregnant woman is equal from the first; it does not commence on one side rather than the other. At a later period, in ovarian dropsy, it is however different, the increase being then often equal as in pregnancy. Amongst the earliest symptoms of pregnancy are the prominent, distinctively marked nipples, and the areolæ of *the breasts;* valuable and distinctive evidence is also afforded by the appearance of the neck of the womb. We may learn much even about the state of the patient in such a case by a tactile examination *per vaginam.* For example, in the first place, there is the deepened colour of the mucous membrane lining the *vagina* and *os.* Secondly, three is the alteration of the position of the neck of the womb; this is of course dependent upon the latter's enlargement and ascent into the abdomen; lastly, and consequent upon the change of position just noticed, there is the disappearance of the sulcus or *cul-de-sac* that exists anteriorly to the os uteri in the unimpregnated condition, as those who have dissected the female pelvic viscera know. Tactile examination is not always to be depended on. Mr Wells states that he has known a professor of obstetrics to thus mistake a malignant uterine tumour for a child's foot. We all know, or should know, what in pregnancy are the characteristic abdominal changes which take place; moreover, that these occur in the same regular order under no other circumstances. Thus, during the first three or four months of gestation the *fundus uteri* is just perceptible above the pubes; about a month later it reaches to a little below the umbilicus; after another month it can be detected a little above it. The uterus continues to enlarge and its fundus to rise until the thirty-sixth week, when it about reaches to the ensiform cartilage. A fortnight before labour comes on, however, it settles down somewhat.

Ballottement is much dwelt upon as a test of pregnancy by several writers. It is not one, however, of much value in a case of doubtful origin. It consists in the giving of a sudden impulse with the forefinger to the cervix uteri behind the *os* in the direction upwards of the brim of the pelvis.

The uterine cavity may have other than natural contents. It may be distended, for instance, by a quantity of fluid or of semi-fluid. What is termed *hæmatometra* simulates pregnancy rather than ovarian disease: still it may be mistaken for the latter disease. The same remark applies to what is termed *hydrometra*.

CASE II.—*Hydrometra.*

An English lady came to England in 1870 from Syria, to consult me, labouring under marked symptoms of hysteria. As she was larger than was natural in the abdomen at the time of consultation, and had seen nothing for some four or five months, she believed herself to be pregnant. Having satisfied myself that she was not so, and, further, that the cause of the enlargement was intrauterine, I passed up a uterine sound through the os uteri; immediately on doing so, quite a volume of faint smelling fluid escaped—several pints. Not expecting it, I had not a receptacle at hand, and could not therefore measure the quantity. It did not again accumulate. I may mention, that the subsequent treatment consisted in the use of a spinal ice-bag, and the exhibition, in alternation, of the tinctures of *Fer. sesquichl.* and *Senec. gracilis* at first, and of the former and *Cimicifuga racemosa* afterwards. The menstrual function was re-established after three months of this treatment; when the lady left England, to resume her missionary duties in the East, her health was thoroughly re-established.

Ovarian disease, on the contrary, commences on one side only. If either breast enlarge, it will be the one of the affected side. The menses in the early stages are as a rule quite regular. If ovarian disease exist simultaneously on both sides, the abdominal enlargement will be much more uniform, and both breasts may enlarge synchronously. It is unusual, however, to find equally advanced double ovarian disease. I have mentioned these changes *seriatim;* for it often happens that an accurate knowledge of them enables the practitioner to decide the question of pregnancy or of ovarian or other disease at once.

I would observe, respecting the frequency of double ovarian disease, that I think its simultaneous occurrence is less uncommon than its equal development. It seems to me, that is to say, that in many cases the disease remains latent, or at all events undetected, on one side, until the surrounding pressure is removed, whether the pressure which the other ovary exercises be got rid of by paracentesis abdominis or by ablation (ovariotomy). Indeed, that the oftentimes enormous encysted dropsical development of one ovary chokes, as it were, by pressure the development of the disease on the opposite side, though only *pro tempore.* It puts me in mind of nasal polypus. Remove one, and its space is occupied in a few weeks' time by another; the fresh obstruction not being an altogether new polypus, but a development of a previously existing small one. And this may occur many times in succession, as every practical surgeon knows.*

The uterus may, however, contain other things than a fœtus and placenta, or an accumulation of fluid. There may be a polypus or a quantity—several quarts—of hydatids. Although an enlargement from these causes may be, and frequently has been, mistaken for pregnancy, it ought not; any more than when it is from fluid, ought it to be mistaken for ovarian disease. It is not necessary to enter at any length into the differences between these diseases and ovarian dropsy. I may mention, however, that an uterine polypus is a readily bleeding pear-shaped tumour, attached by its stalk (pedicle) to some part of the womb. Their attachment varies. They most frequently arise from its cavity just below the inner openings of the Fallopian tubes, in others they do so from its neck and os.

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* I contributed a paper on the subject of nasal polypus to the *United States Medical Investigator* quite recently (May 1875).

I have said nothing yet respecting the uterine sound. It was first used by the late Sir James Simpson. It is especially of use in the diagnosis of abdominal tumours in obscure cases. I need not describe the instrument, as its appearance and purpose are probably known to the professional reader. If the tumour be distinct from the uterus, the latter, by means of the sound, is movable, whilst the former (the tumour) is not. If, on the contrary, the tumour is an uterine one, the sound will, as Sir James Simpson says, appear as if it passed into the mass, which will move with all the movements of the instrument. It is, however, especially in the diagnosis of *ovarian and extra-uterine tumours* that its value consists. It is not nearly so easy to distinguish an *ovarian* from an *uterine* tumour, as it is from a pregnant uterus. It is here that diagnosis has been and is so often at fault. Mr Wells even goes so far as to state, that there are some cases "which can only be cleared up by an *exploratory incision;*" but in this opinion I cannot at all agree. It is in these doubtful cases that the uterine sound and the aspiratory needle are of such great value. I altogether leave on one side just now pneumatic aspiration as a means of treatment. I believe that a skilful practitioner can diagnose correctly, in the immense majority of cases, without any need for such an incision, if he be thoroughly conversant with the proper means to employ; and that if he cannot in all, the exceptional one will be that which proves the rule. The same writer mentions various instances of mistaken diagnosis, only discovered when ovariotomy was attempted, and after the abdominal cavity was opened. In Hoeberlé's eight reported cases of gastrotomy, he states that the diagnosis before operation was wrong in five.* In the same work he remarks—"In fact, it has happened to many surgeons, and to myself among the number, that we have commenced the operation of ovariotomy, and even removed tumours from the abdomen, under the impression that we were dealing with diseased ovaries; when, upon examination, they have proved to be pedunculated fibroid outgrowths from the uterus."

Difference of outline of the abdomen does not go for much. Still it has a certain value, and will give a commencing bias to the diagnosis which is about to be formed. The enlargement is more partial, and is more marked in the hypogastric region, as a rule, in the case of uterine than of ovarian tumours. Another thing is the appearance of the navel. This is seldom affected in the case of uterine tumours; whilst in ovarian or peritoneal dropsy, it is. In these latter it may be even obliterated, as it was in a case of mine (See Plate); or it may be unusually prominent.

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* *Op. cit.*, p. 188, edit. 1872.

Percussion does not help us much, the dull note emitted when either tumour is struck, being alike in both cases,—of course supposing the cyst to be perfect.

The stethoscope may be of some use. A vascular sound coincident with the pulse, is seldom heard in the case of ovarian tumours.

The measuring tape shows an enlargement in both tumours,—from the ensiform cartilage to the pubes. This increase is more marked in the case of uterine than it is in the case of ovarian tumours below the navel.

Then as to fluctuation. In pregnancy there is more during the first four months. Fœtal movements are of course positive evidence of pregnancy; so also are the sounds of the fœtal heart. Of course, if the fœtus be dead, there are neither movements nor fœtal pulsation.

It follows that the absence of these conditions is only negative evidence of sterility, and is not positive proof of ovarian or of uterine disease. It is necessary, to be sure, that the sounds heard should be those of a fœtal heart, and not those of the maternal pulse. To make certain of this, it is advisable to count both the number of the patient's uterine and of her radial pulsations. It is necessary to remember that the fœtal pulse is more rapid than the maternal. An ovarian tumour is, *cæteris paribus*, more movable than an uterine one. If the tumour be floating in peritoneal fluid, the nature of the latter must be first ascertained. This can be done; and, if necessary, the ascitic fluid be withdrawn with complete safety through a No. 2 needle, by means of the aspirator.

Renal Tumours.

Renal have been mistaken for ovarian tumours. They can generally be recognised by their fixed position at the side of the abdomen, by (in the cases of cancerous and fibroid tumours) the absence of fluctuation, and by their relations to the intestine, which is mostly adherent. Yet mistakes have occurred. Such an one is reported in the *Lancet* of 1865. An attempt was made at one of our general hospitals to perform ovariotomy, when no ovarian disease existed. The tumour turned out to be an enlarged movable kidney. Mr Wells reports a case of *Cystic Degeneration of the Left Kidney*,* which was mistaken for a cyst of the corresponding ovary. The operation of ovariotomy was attempted, and of course failed. The patient died thirty hours afterwards. I scarcely think, however, that her death was much hastened by the operation. When a fluid tumour of the kidney exists, of any extent, whether purulent (*nephropyosis*) or dropsical (*nephrohydrosis*), fluctuation can be distinguished generally pretty readily; its lateral position and its situation behind the bowel, are generally sufficient for the purpose of diagnosis. If the practitioner will remember the relative positions of the kidneys and the ureters—as shown in the woodcut—to the pelvic viscera, it will assist his diagnosis. Large fæcal accumulations have been mistaken for tumours. It seems to me, however, scarcely creditable to the acumen of the surgeon to mistake such an accumulation for an ovarian tumour.

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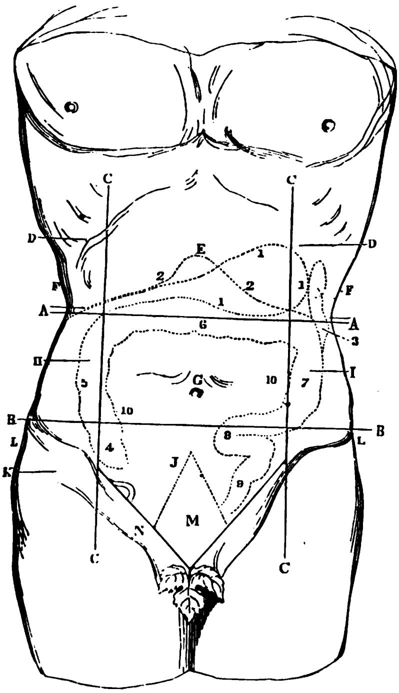
* *Op. cit.*, p. 211.

Another instance of wrong diagnosis occurs here to my recollection. It was a case of pelvic abscess, from caries of the lumbar vertebræ, which was mistaken for an ovarian cyst. The patient has since died. I do not know whether any operation was attempted after she left London, but I think not; it is certain, however, that ovariotomy was proposed by an eminent practitioner before I saw her. I know I declined to interfere surgically. This happened seven years ago, and of course before I had any knowledge of pneumatic aspiration.

Before concluding this chapter upon the diagnosis of abdominal enlargements, I have one more remark to make. It is that diagnostic errors respecting organic uterine diseases are very common; quite as much so, probably more, and that is saying a great deal, as are affections of the kidneys, bladder, prostate, and urethra in men.

A recollection at the time of making an examination of the regions of the abdomen, as shown in Plate IV., and of the relative position of their natural and possible contents, would prevent the occurrence of many diagnostic blunders.

PLATE IV.



A A, Upper (imaginary) Line.
C C, C C, Right and Left Perpendicular Lines.
E, Epigastric (Stomach) Region.
G, Umbilical Region.
I, Left Lumbar Region.
K and N, Right Inguinal Region, and Poupart's Ligament.
M, Pubic Region.

B B, Lower Line.
D, D, Right and Left Hypochondria.
H, Right Lumbar Region.
J, Hypogastric Region.
L, L, Crista Ilii.
Dotted lines represent—4, Cæcum; 5, 6, 7, 8, 9, Ascending, Transverse, and Descending Colon, and Sigmoid Flexure.

CHAPTER V.

ABDOMINAL DROPSY OR ASCITES.

SIMPLE abdominal dropsy or ascites, or *hydroperitonæum*, as it is sometimes called, is an accumulation of fluid in the sac of the peritoneum. Whatever hinders the flow of blood through the veins of the liver (the portal system) can cause it. The principal offender, accordingly, is the liver itself. Of the conditions favouring dropsy, that known as hobnail liver is the chief. Hobnail liver, or cirrhose, is immediately caused by a thickening of the condensed cellular tissue constituting the sheath (capsule of *Glisson*) of the portal vein, and other vessels, as they pass through its substance. Dram-drinking is the chief cause. Indeed it is commonly called, in this country, gin-drinker's liver, for this reason, gin being the spirit most favoured by English tipplers. It is very doubtful, however, if the change I understand to be taking place in the drinking staple of this country, from turpentified gin to fusel-oiled whisky, will have any effect on the statistics of "cirrhose" in the future. Ascites often complicates ovarian dropsy, and constitutes thus a dropsy within a dropsy—an *imperium in imperio;* it is a matter of some importance, therefore, that the practitioner be able to distinguish between the two diseases with certainty; still the danger is much less *now* with the aspiratory needle that it was when ovariotomy and the common tapping operation were the only alternatives. The consequences of an error in diagnosis are very different in different cases, according to the manner of operative treatment in favour with the doctor. If I make a mistake in diagnosis, there will not be the same danger to the patient's life that there will be if Mr Wells or Dr Marion Sims makes it. An aspiratory tapping operation—such as any of the numerous ones which I have practised, both in the cases described in this work and others—entails no more, or scarcely any more, risk to life, than does an aspiratory exploration.

The advocacy of a safe operation does not render its advocate less able to form a correct diagnosis, than if he were an intending ovariotomist—of course *cæteris paribus.* That diagnosis is not easy in all cases, is shown by the case already referred to,* in which ovarian and peritoneal dropsy had coexisted for a considerable time, probably for several years; although ascites had not been suspected until last September, when I examined the patient. An authoritative and disinterested writer on the subject, Dr Robert Lee, alludes to this where he says, "Not unfrequently, in the progress of ovarian disease, effusion takes place in the sac of the peritoneum, and the quantity of ascitic fluid is as great as that contained in the ovarian cysts. I have seen several cases in which the most acute and experienced physicians have been at a loss to determine, after the most rigid examination, whether the enlargement of the abdomen arose from encysted dropsy or ascites."*

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* Page 23.

At an early stage it is comparatively easy for a practitioner used to these examinations to distinguish between ascites and encysted ovarian dropsy. It is, however, less easy if it be unilocular than if it be multilocular. Neither is the diagnosis difficult in advanced cases of multilocular dropsy. In these latter the varying hardness of different parts, evidenced by fluctuation in one part and not in another, renders the diagnosis easy. In advanced unilocular cases there is more difficulty. Where, however, the examiner is likely to be at fault, is in cases of combined ascites and ovarian, multilocular as well as unilocular, dropsy, at a comparatively early period, before there are adhesions; in fact, in cases where the ovarian cyst or cysts are floating in the ascitic fluid of the peritoneal sac.

Diagnosis of Ascites.

An ordinary case of ascites may be easily diagnosed by attention to the following points:—First, as to inspection, compare the contour of the abdomen in different positions, *e.g.*, 1. Sitting up (on a high chair, with the legs hanging unsupported, is a good position);

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* *On Ovarian and Uterine Diseases*, p. 82.

2. lying flat on the back; 3. lying on the back with the shoulders raised.

In ascites, the fluid being contained in the cavity of one enormous serous sac, necessarily gravitates towards the lowest part. Consequently, the abdominal contours vary according to the patient's position.

The navel of an ascitic patient often stands out and appears distended. It is not, however, altered in its relative position to surrounding parts, as the sternum and pubes.

Examination by the hand (*palpation*) shows hardness were fluid is. It is evident that the patient's position goes for much more in ascites than in encysted dropsy.

Percussion is a valuable aid to diagnosis in all cases. In position 2, in ascites, the centre, on percussion, all round the umbilicus, gives a clear note, whilst the outer circumference gives a dull one. This is, as a rule, the reverse of what happens with ovarian dropsy. The reason is, that, in peritoneal dropsy, the fluid buoys up the stomach and intestines; whilst that of an ovarian cyst being enclosed, as it were, pushes them out of its way. If the peritoneum be greatly distended, however, the clear note in the centre will be wanting, owing to the breadth of the mesentery being less than the depth of the ascitic fluid.

Percussion should be practised also in the first position. The clear note will then be in the upper portion of the abdomen, above the umbilicus, where the intestines are floating, and the dull note beneath. So far the result is like that attending the percussion of a case of ovarian dropsy. I always apply this test, however, because, in a doubtful case of ascites, it gives positive evidence if the contained fluid be ascitic; the latter being always—as long as the whole peritoneum is not distended—on a level. This is a hydrostatic fact, which always admits of proof as long as the abdominal walls are not very thick.

The detection of fluctuation is equally important. It should be most carefully practised in both positions (1 and 2), and at different intervals. No written, or even verbal, description will enable a novice to detect fluid in an obscure case, where it is at any depth from the surface, and as it were masked. It requires tact, and a faculty of touch which does not belong to every one, professional or not. Practice at the bedside *may* give the former quality, but not the latter, which is very difficult to acquire, like the "touch" of a skilled musician.

CHAPTER VI.

OVARIOTOMY.

Is Ovariotomy a Justifiable Operation? The Risk to Life. Published Cases, and Unsuccessful Completed Ovariotomy. Surgical Fashions. Professional Opinion on the Merits of this Operation; its increasing frequency. The Fatality of Ovariotomy. Hospitals and Surgical Homes. Popular Medicines; Reaction. Erichsen on Ovariotomy. Gynæcologists and "Women-Doctors." Dr Black. Unfortunate Ovariotomy—Case 3. Dr Robert Lee. Liston's Opinion. Works on Ovariotomy.

Is ovariotomy a good and justifiable operation in all cases of ovarian tumour? Formerly this question was answered by almost all the surgical and medical authorities in the negative. The tide of opinion, however, has turned to a great extent, so that the operation is not much less extolled and recommended at the present time than it was a few years ago vituperated. Why is this? Is the operation merely a surgical fashion? Is it popular with the profession because of its intrinsic excellence? Is it a valuable operation in certain selected cases, but over-estimated? Probably the last query contains the germ of truth. However, we shall perhaps be better able to come to some definite conclusion as we proceed.

Fortunately, or unfortunately, the whole therapeutics of ovarian disease cannot be summed up in one short sentence. It is not simply a choice between the dangers of ovariotomy and a complete cure on the one hand, and of a painful, perhaps lingering, death on the other; for there can be no doubt that the performance of this operation entails considerable risk to life. If the operation when successful could be depended on to cure the patient, and if the risk to life were not so great as it has proved on an average to be, then the operation would in many cases be both a justifiable and a laudable one—as long as the patient is desirous, of course, to run the risk.

Supposing there be, however, another course open—perhaps less showy and quick, but still one which is effective *in properly chosen cases*, and which is so with but little risk to life—I need hardly say that then it is an altogether different thing. I do not, certainly, object theoretically to the operation *per se* of ovariotomy; neither do I object to its performance because of the risk to life which it entails. I certainly, however, object to a "capital" operation like ovariotomy, if it be not imperatively needed. Moreover, I do not think it is nearly so often necessary as it is said to be. As an instance of the contrary, I may mention that condition of blood-poisoning by the absorption of pus which is known as *pyæmia*. Now, symptoms of *pyæmia* may be consequent upon effusion of pus into the peritoneum. Their occurrence is always, I believe, held by ovariotomists to indicate the performance of ovariotomy, and often, in addition, the use of the drainage tube.

In a case of mine, marked symptoms of pyæmia from this cause made their appearance several times, yet on every occasion of their doing so they succumbed to the harmless removal of the pus by the aspiratory needle—greatly aided, however, by the proper exhibition of specific medicines, such as Arsenicum, etc. The medicinal treatment pursued in this case is given with the notes. I do not think that the patient could possibly have recovered without such specific treatment.

Ovariotomists, I cannot help thinking, belong as a rule to the genus of enthusiasts. They are apt, in the first place, somewhat unnecessarily to indulge in strong assertions; and, secondly, they not seldom confuse *post hoc* with *propter hoc.* As an instance of the exactness of the first of these criticisms, I may mention the absurdly strong manner in which some of its advocates characterize the tapping of ovarian cysts. One goes so far as to call it a "crime" (Stilling). And all this fume is because tapping may cause adhesions, and so slightly interfere with the performance of ovariotomy, as if the latter operation were a heaven-inspired one. Supposing an opponent of ovariotomy were to characterize that operation as a "crime," he would certainly be equally (possibly more so) justified in so speaking of it. Even Mr Wells, the chief performer of ovariotomy in this country, admits the utter inability of its thick-and-thin advocates to reason on the subject. He says,* "I have heard it gravely asserted that it (*i.e.*, tapping) is a more fatal operation than ovariotomy, because after ovariotomy three-fourths" (this is an almost too favourable average, is it not, Mr Wells ?) "of the patients recover, while after tapping, *sooner or later*, they all die." Is not this a *reductio ad absurdum ?*

Still, I am willing to allow that the tapping of ovarian cysts, as hitherto practised, with a large trocar and canula, such an instrument as is commonly employed for paracentesis abdominis, is an objectionable operation, and one if possible to be avoided. How different from progressive tapping with an aspiratory needle or a small air-tight trocar and canula! I shall refer to this again, however, when treating of pneumatic aspiration.

Some interesting cases of ovariotomy, performed in somewhat similar cases to mine,† by Dr Keith, are given in a late number of the *Edinburgh Medical Journal*.‡ Whether they might not have been amenable to the treatment pursued in my case, is a question. The treatment pursued in the latter was so successful as to warrant its trial in others.

It may be as well here to make a few observations as to the statistics of the operation of ovariotomy. These are certainly somewhat of a puzzle. I cannot say that I quite understand as a rule those which I have seen. The practisers, indeed, of the operation are hardly ingenuous, for their statistics are so very successful, whilst the accounts of those opposed are quite otherwise.

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* *Op. cit.*, p. 253.

† Just referred to: see also footnote, p. 23.

‡ February 1875.

Erichsen quotes * an analysis by Dr Lyman of New York † of 300 cases. The death-rate was equal to 40 per cent. The reader would be wrong, however, if he concluded that, *ergo*, 60 per cent. were cured. Not so; instead of 60 per cent., the operation was successful —*i.e.*, in the complete restoration of the patient— in only 39½ per cent. That is to say, in 119 out of 300 cases.

It is certain that the operation—successful or unsuccessful in the removal of the tumours—cannot be performed except at considerable risk to life. Nor is this all; it may happen that a so-called successful case is really a failure. Such a case came under my notice not long since, which had been reported as successful. ‡

In other cases, it has happened that the patient's life has been uselessly endangered even where the operation has not proved fatal. This has happened in various ways, *e.g.*, from firm adhesions between the tumour and the peritoneum, and from errors in diagnosis. Such an unfortunate accident has occurred, indeed, as the mistaking of a gravid uterus and a distended bladder for ovarian cysts. Respecting the advisability of extirpating ovarian cysts, opinion is much divided. Favourable or not, however, it is certain that the operation is becoming more and more common. I have already alluded to the statistics of the fatality attending it. I believe there are several hospitals or surgical homes, public and private, in this metropolis almost entirely devoted to the removal of these tumours by the knife and clamp. It is of course impossible to get at trustworthy reports of all the cases which are treated by operation at these institutions. It is true that one surgeon has reported the results of his 500 cases, and that another operator has given the statistics of his 200, etc. This is not what is wanted, however. Every case of ovariotomy should be, I think, reported; whether it be performed in a public institution or privately, whether it proved successful or unsuccessful. We want, in short, universal statistics of such a questionable and dangerous operation as this is.

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* *Op. cit.*, p. 1025.

† Ovariotomy is quite a favourite operation among our transatlantic cousins.

‡ Page 60.

There are fashions in surgery as in medicine, and it almost seems as though this operation were one. We have all seen the lengths to which men will go in favour of the last new remedy, until it becomes almost an universal panacea; then we have the invariable reaction. We afterwards see the same remedy diminish in favour until it is put on one side and held in unmerited contempt, its later opprobium being equal to its previous exaltation. Yet the remedy is still a good one in properly-selected cases, but it has been done to death by injudicious partisanship. So perhaps it will be with ovariotomy.

Mr Erichsen, in his work on surgery,* states these operations to have been condemned on the grounds that, "as the disease for which they were performed was not necessarily fatal, or at all events incompatible with long life, it was not proper to subject the patient to a hazardous procedure for its removal; and that the mortality from the operation was so high as not to justify a surgeon in performing it." I am much of the same opinion, and I think that these constitute grave objections to ovariotomy, even if there were no others, which there are.

It would seem, however, as if all gynecologists—or, in popular phraseology, "women-doctors"—were fond of the knife in the diseases of women. A Scotch physician alludes to this. He remarks in his work,† in the article upon Sterility—"This want of offspring has led to uterine 'speculations,' incisions, replacements; in short, uterine tinkering of every description, to an extent that is truly humiliating to contemplate—processes to which females have submitted with a meekness uncommon to them as a body, and consequently, *per se*, deserving of all commendation."

Whether our author, like Mr Oldbuck in Scott's "Antiquary," is a professed misogynist, of course I do not know.

It happens, unfortunately, sometimes that when even the patient survives successful ovariotomy, she does not consider herself better off than before. There is a condition to which women who have been ovariotomized are liable, and that is traumatic rupture or ventral hernia; although one does not see much about it in surgical writings. Mr Wells alludes, indeed, somewhat briefly, to the subject in his recent work. He mentions a doubtful case of sub-acute tubercular peritonitis, in which he made a speculative incision "below the umbilicus, and opened the peritoneum," with the intention that, "if a cyst was found, it should be removed; whereas if there were no cyst, the incision would serve instead of tapping."* There was no cyst, and so the patient ran the risk of having her abdomen laid open uselessly. The case ended better than it might have done; for she recovered from the operation, and the fluid did not re-form. She would have done better, however, if she had been simply tapped, for Mr Haden wrote of her case, "The closure of the linea alba is not, and never was, complete, and she wears a bandage to keep herself together."† Mr Wells follows up the report of this case by the remark, "Since I have learned to be more particular in bringing the peritoneal edges of the opening in the abdominal wall well together, I have seen fewer cases of this kind of ventral hernia than in my earlier cases:"‡ thus conveying the idea that this is far from being a solitary case of traumatic rupture. An instance of this condition has been alluded to. It was as follows:—

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* Erichsen's Science and Art of Surgery.

† On the Functional Diseases of the Renal, Urinary, and Reproductive Organs. By Dr D. C. Black. P. 273.

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* *Op. cit.*, p. 136. † *Op. cit.*, p. 137. ‡ *Op. cit.*, p. 137.

CASE III.—*Ventral or Traumatic Hernia.*

Mrs —— came to consult me some time in last year for a troublesome falling of the womb, which quite prevented the performance of her ordinary household duties. For this I advised the wearing of a suitable pessary, and further, to have a course of *Sepia.* She did so, and obtained great relief. Why I mention this case is, however, because of its previous history. Mrs ——, before 1872, had suffered from ovarian disease for several years. For this she had been uselessly treated by different physicians with pressure, ointments, etc. She then went under the care of a well-known London obstetrician. This gentleman, at the end of six months, sent her to a celebrated ovariotomist, to have ovariotomy performed. She was accordingly operated on, and with success; that is to say, the tumour was removed, and the wound healed. She always afterwards had to use an abdominal bandage. This, however, although it supported the walls of the abdomen, did not at all do so to her satisfaction. She told me that she did not believe that she was any better for the operation, and that, instead of feeling relieved, she was quite the opposite. She said, *inter alia,* "I suffer daily now from the loss of all natural (abdominal) support." This case has been reported as successful.

It may be objected, however, that this is only one case, and that "one swallow does not make a summer." That is true. Still, as an illustration, coupled with the quotations from Mr Wells's book, it is sufficient to show that successfully performed ovariotomy is not necessarily a satisfactory operation. It is a question, however, whether any woman would be willing to run the risk of a formidable, often fatal, operation, if a complete cure were not promised as the alternative of failure.

Do not operating surgeons, however, frequently promise too much? The patient submits to a dangerous operation, such as ovariotomy, by being persuaded that, if it be successful, she will be completely cured of her malady—*ergo*, that, as far as the latter is concerned, she will suffer no more. If the patient do suffer afterwards, whether from the disease itself or from the consequences of the operation for its removal, the repute of ovariotomy is sure to suffer.

Take another case. A patient suffers from debilitating hæmorrhage from the rectum, and also from internal piles. A surgeon who is consulted thinks that relief to the bleeding will be afforded by removing the latter. The idea is a perfectly reasonable one. In such a case, indeed—specific constitutional treatment, as *Hamamelis v.* or *Arnica m.*, and the local application of *Calendula* tincture, ice, styptics, etc., failing to stop the hæmorrhage—their removal, whether by nitric acid, by the ligature, or by Gowland's* clamp, is the very treatment I should adopt. It would not be as a rule wise, however, to assure the patient that the hæmorrhage would thus be infallibly arrested. One of the surgeons to King's

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* This is less cumbersome and more handy than Mr Smith's.

College Hospital did so, and mentions the annoyance he and a brother practitioner suffered from making so rash a promise. He says: "It is impossible to estimate the anxiety and annoyance to which Dr —— and myself were subjected, because the special feature which drove this lady to submit to the operation was the excessive and debilitating hæmorrhage, and which I confidently promised would be thoroughly put an end to by the operation in question." *

Dr Robert Lee, the well-known obstetrician and lecturer in this city, makes the following remarks upon the statistics of ovariotomy. He says in his work † that "the following analysis of 162 cases of ovariotomy ‡ will furnish data to enable us to determine whether it would not contribute equally to the interests of humanity, and the honour of British surgery, if this operation, which was facetiously termed belly-ripping by Robert Liston,§ were wholly abandoned." Doubtlessly, it is a more successful operation now than it was at the time when the above remark was written. Members of the profession as a rule are now more skilful in several ways than their predecessors were. Mistakes in diagnosis are now more rare, and un-

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* The Surgery of the Rectum, p. 97. By H. Smith, Assistant-Surgeon, King's College.

† On Ovarian and Uterine Diseases, p. 83.

‡ Medico-Chirurgical Transactions, vol. xxiv. Republished in Dr Lee's work (*cit.*).

§ Formerly Surgeon to University College Hospital in this city; was celebrated as a great and successful lithotomist.

necessary operations are less often performed. Besides this, the operation itself has been improved upon in several important particulars. Still, however much the operation has improved, it continues, and must continue, to be an unpleasantly fatal one. Indeed, if the results of ovariotomy were as bad now as formerly, when the analysis of the 162 cases given in Dr Lee's work shows them to have been, it would be an operation "more honoured in the breach than in the observance."

This is not the place to describe the operation of ovariotomy at length. It has been already fully described by more than one general hospital surgeon, as well as by the professed ovariotomists. Those seeking information thereon will find most of the information they seek in the works of (the late) I. B. Brown, Marion Sims, Wells, Erichsen, Bryant, etc.

The operation has remained the same since the long was abandoned for the short incision, with tapping.

Of what does the operation of ovariotomy consist?

There have been two methods of operation, as already stated. The one by the long incision soon and deservedly fell into disrepute. That by the short incision is comparatively a much safer and better one. It is not by any means, however, a new operation, as the reader may suppose; it having been proposed and described by Dr William Hunter, the brother of the celebrated anatomist, John Hunter. William Hunter proposed to "make such a wound in the belly as will only admit two fingers or so, and then to tap the bag and draw it out, so as to bring its root or peduncle close to the wound of the belly, that the surgeon may cut it without introducing his hand; surely in a case so desperate it might be advisable to do it, *could we know beforehand that circumstances would admit of that treatment.*" The italics are mine. The fact is, that it is impossible to know beforehand whether the hand will have to be introduced into the abdominal cavity or not. In most cases there are adhesions, and if these latter are numerous and firm, the operation will have to be abandoned. I need not say, that it is very undesirable to make an incision into any one's abdomen to no purpose, and then to sew the wound up.

It is scarcely possible to describe the operation more clearly than in William Hunter's own words;* although the language it is expressed in savours perhaps to our ears somewhat too much of the time when he wrote. Let us see how a living physician of repute describes it. It is thus described by Sir T. Watson.† "It (the operation) consists in making not a long, but a small incision through the walls of the abdomen, and through the peritoneum, so as to bring the surface of the diseased ovary into view. The cyst is then secured, by means of a tenaculum or of a ligature, from receding inwards, and punctured, and its contents are suffered to escape. When the sac has emptied itself, it is withdrawn through the external orifice by gentle traction, until its stalk or place of attachment to the broad ligament comes near the wound. A thread is tied round its stalk, the cyst is cut off, the uterine appendages are put back into the cavity of the abdomen, and the lips of the wound are brought together." It is noticeable that nothing is said anywhere about pneumatic aspiration. Wells never alludes to it; yet it must have been talked of before his new edition, or rather new work (1872) was printed. Marion Sims's work (my copy is one of 1866) is not of sufficiently recent date for any reference to be made to aspiration, and still less of course is I. B. Brown's. Neither is there any mention of it in an abstract of Dr Keith's recent ovariotomy cases, just published;* although ordinary tapping seems to have been practised in most of them.

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* Watson's Principles and Practice of Physic, vol. ii. p. 415.

† *Op. cit.*, vol. ii. p. 414.

What is the cause of this reticence about pneumatic aspiration? I cannot help thinking of Sir Henry Thompson's opinion upon *bougies à boule*, viz., that they are "surgery made too easy."†

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* *London Medical Record*, 7th April 1875. An abstract from the *Edinburgh Medical Journal* of February of the same year.

† Diseases of the Urinary Organs, p. 33.

CHAPTER VII.

PARACENTESIS ABDOMINIS, AND PNEUMATIC ASPIRATION.

The Ordinary Tapping Operation; Objections; Dangers of. Vaginal Tapping and Drainage. Rectal Tapping. Boinet on Iodine Injections. Pneumatic Aspiration; Sine qua non; Harmlessness of. Advantage of Confidence; Dr Dieulafoy on.' Extracts. Universal Applications of Exploratory Aspiration. Aspirator used by the Author. Plate. Additions to; Air-tight Trocar and Canula; Quill-Pen Canula; Syphon Tap. Action and Advantages of the above Aspirator. Unvarying and Varying Vacuums. Injections. Rack and Notch Aspirator. Author's Experience. Time no Object. Knowledge and Ability required. Exploratory Aspiration. Injurious Effects of Air on Shut Cavities. Precautions.

ORDINARY tapping is a very different thing from the pneumatic aspiratory operation. The first is not safe; the latter, if performed with judgment and skill, always is; at least it has always proved so within my experience. Sir T. Watson alludes to the risks attending (common *) tapping. In his large work,† he says,

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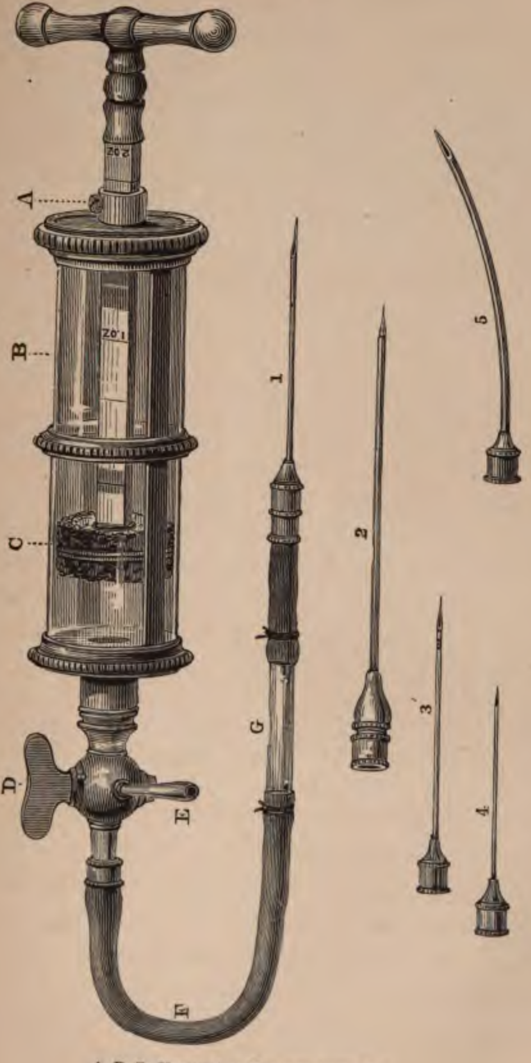
* The only kind that was known at the time of his writing.

† *Op. cit.*, p. 417.

PLATE V.



A B C, Unvarying Vacuum Aspirator.
D, Universal Tap. E, Exit Mount.
F, G, Connecting Tube and Glass Index.
1, 2, 3, 4, 5, Aspiratory Needles.

"The operation, though commonly esteemed a trivial one, is not without its dangers. The instances are not few in which it has been followed by fatal peritonitis."

Many surgeons object to tapping. I have already, in Chapter III., alluded to the danger of *peritonitis.*

Another objection which is much dwelt upon by ovariotomists is, that repeated tappings—of course, with an ordinary trocar and canula—cause adhesions, and so interfere with the removal of the tumour by excision. This is to some extent true of the usual method of tapping; it would be so, at least, if ovariotomy were a necessity in every case, which it is far from being.

I attach little weight to this objection. In the first place, it is doubtful, when tapping with an aspiratory needle, or a small air-tight quill-pen canula is more common, if ovariotomy will be nearly as often practised as it has been of late years. Secondly, I much question if adhesions follow aspiratory punctures. It is easy to understand local inflammation being set up by the bayonet-like wound of a large trocar.

It is quite different, however, with the minute puncture of an aspiratory needle. I have practised half-a-dozen aspirations in succession at one place, so that the six punctures have all been made within the circumference of a sixpence; yet you could barely trace, the day following each operation, any trace of puncture. It seems scarcely possible, therefore, that adhesions can follow aspiration; even if they do, they must be of such slight extent as to be of little consequence. It would seem, therefore, that, if ovariotomy should later be resolved on, its performance would not be rendered more difficult by the antecedent relief afforded by aspiratory tapping.

It is true that our experience of aspiration is as yet very limited, and necessarily so, because the method is a new one. It is a want rather than a fault, however, and one which each succeeding year will see diminished.

It is almost unnecessary to say more about the ordinary tapping operation. Before proceeding, however, to describe what aspiratory paracentesis is, and how to practise it, it will be as well to notice one or two particular methods of tapping. First of all, there is what I will call "vaginal tapping and drainage." Its object is both to relieve the patient of the cystic fluid and to prevent its re-accumulation until the cyst wall ceases to secrete. This happy result, unfortunately, seldom happens, for the reason that the opening by which the fluid escapes lets air enter, and that the probable consequences are suppuration, inflammation, and low, exhausting fever. It is accomplished by tapping the cyst by means of an ordinary large canula thrust through the vaginal wall, that situation being chosen as the most dependent part of the cyst. Of course, this is only practicable in a limited number of cases. A drainage-tube is then passed through the tapping canula.

I think this plan is capable of being very considerably improved upon. I have an idea for a new kind of drainage-tube for this purpose, which is now being made for me. It will have, I think, one or two advantages over others. I hope soon to bring it before the profession. Another kind of localized tapping has found favour with some surgeons. Rectal paracentesis, however, seems to me to be an objectionable practice.

The reports we have of the treatment by tapping and the after-injection of iodine are not altogether favourable. This plan, which has been a good deal practised in France and Russia by Boinet and Krassowski, has as yet been applied somewhat indiscriminately. In picked cases, I should expect that it will afford even better results than those yet reported.

The reader will find the method of treating ovarian cysts by the injection of iodine tincture, as practised by Boinet, fully given in that surgeon's work on ovarian diseases.

I cannot, perhaps, better commence my account of pneumatic aspiration, as applied to the tapping of ovarian, peritoneal, and other abdominal dropsies, than by stating what is a *sine qua non* to its successful performance.

What, then, is a necessity, is that the cystic or other fluid should be capable of passing through an aspiratory needle. If a No. 2 or 3, or even a No. 4, needle can be used, there need be little fear of infiltration of foreign fluid into the peritoneum; *ergo*, there is no likelihood of peritonitis. Of course, when the contents are solid, or quite semi-solid, neither aspiratory nor any other tapping is practicable. In this latter case, we must, in the few advanced cases where fluctuation is not recognisable, have recourse to *incision* or *ovariotomy;* or else we must leave the patient to her fate—to die.

Let me now make a remark as to the safety of this method of tapping. If, indeed, the intending operator be not well convinced of its harmlessness, he will fail to relieve, and make blunders in a good many cases. This will be seen better presently.

As to myself I have no doubt of its safety; for I have proved it over and over again. It may, however, carry more weight if I quote Dr Dieulafoy on this point. In writing upon aspiration as applicable to the emptying of the bladder in cases of urinary retention, he says, "I was, above all, struck by the harmlessness of the punctures, and seeing that the aspiratory needle could be introduced with impunity into the most delicate parts, I thought immediately of puncturing the bladder and evacuating the urine in the case of retention." With proper caution, however, our author first experimented on dogs. He says, "Operations performed on dogs proved to me that the bladder of the animal could be punctured, the fluid it contained drawn off, and this repeated many times a day, without the slightest accident resulting. In the animals destroyed a few moments after the operation, *it was not possible to discover traces of the puncture on the external surface of the organ; internally, small reddish ecchymotic spots, having the appearance and size of flea-bites, were barely* *visible.*" A little further on he observes, "I may be allowed to bring forward the results given by aspiration:* Needle No. 1 is introduced through the abdomen above the pubes, and the urine aspirated; the puncture is so fine and the walls of the bladder are so contractile, that the contact of the urine with the peritoneum is not possible."

Let us consider some other of the advantages of this method. In the abstraction of morbid and other fluids † "it enables the operator to make a sure diagnosis as to the nature of cysts, abscesses, and other soft tumours, and this without any danger to the patient. Moreover, there is hardly any limit to its application, either as to locality or depth from the surface; that is to say, if a sufficiently fine needle be skilfully employed. I need not say that these are indeed advantages. Now as to the tapping of cysts and other collections of fluids—it enables us to do so without the danger of introducing atmospheric air and pus germs into the cavity of the abscess. Nor is this all, for, through the same fine needle by which the pus has been withdrawn, can, if it be wished, a stimulating or other injection be introduced and withdrawn, and still all by *one continuous, subcutaneous, air-tight operation.* The importance to every one concerned—physician, surgeon, and patient—of the good qualities I have just mentioned, is evident."

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* Page 97, *op. cit.*

† On Abscess and Aspiration, and the Prevention of Fistula, by the author of the present work.

Dr Dieulafoy described aspiration as the constituting "a method of diagnosis and treatment by means of which we can proceed with certainty, and without danger, in our search for pathological fluids, whatever may be their seat or their nature. Exploratory punctures, less sure, and sometimes dangerous, will henceforth give place to *aspiratory punctures, always harmless*." It is accordingly evident that the principle of aspiration is capable of very general application, not only for the purpose of diagnosis, but for the removal of effusions, whether the fluid is contained in a shut *sac* (*e.g.*, hydropericarditis and housemaid's knee), in the subcutaneous cellular tissue, in the sheaths of muscles, or in an ischio-rectal abscess.

Let us now consider the instrument, the "aspirator," used to accomplish aspiration. Dr Dieulafoy describes it as being a "pneumatic machine of varying shape and size, which is intended, by means of fine hollow needles introduced into the tissues, to remove the morbid fluids effused into and collected in the organs, the serous cavities, and the different regions of the economy." *

An aspirator which I have used on several hundred occasions is shown at the beginning of this chapter. It was made for me, after a French model, by Coxeter. It is an unusually well-made instrument. In the first place, its glass cylinder is of almost true gauge throughout. The same can be said of an extremely small number of aspirators. Trueness of gauge is, however, a point of considerable importance, for it is essential to the formation of a *lasting vacuum*, the possession of which latter enables the operator to *set* his instrument before applying the needle. Indeed, it is the great difficulty of getting *true* glass-tubing of the cylinder's required size and length that has caused the principle of the old-fashioned air-pump to be adopted by more than one maker. These latter instruments are characterized by the vacuum chamber being distinct from the exhausting syringe. Dr Dieulafoy describes them as being aspirators with a "varying vacuum." Another advantage of the instrument I am describing over the pattern one is that it has, like the one shown in Dieulafoy's work, a short piece of glass-tubing let into the indiarubber tube which connects the aspiratory needle and the cylinder. Then, all the aspiratory needles and canulas are made of proper calibre, the same that Dr Dieulafoy mentions—Nos. 1, 2, 3, and 4. Each needle is thus of a known size. Thus, a No. 1 has a diameter of half a millimetre, a No. 2 of one, a No. 3 of one and a half, and so on.

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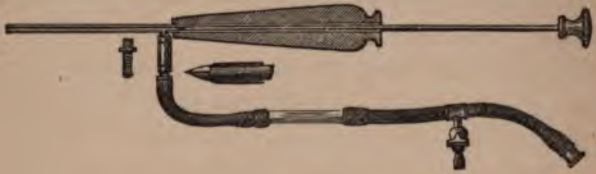
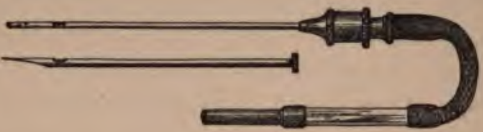
* *Op. cit.*

Besides these ordinary, or I may say stock, aspiratory appliances, I have had some useful additions made to my instrument. One is a Thompson's air-tight trocar and canula. It is somewhat longer (an inch) and of smaller calibre than usual. The woodcut shows its mechanism and action. When about to be used, it looks like an ordinary trocar and canula. Its closed armed extremity (shown separately) looks in the woodcut, however, flat, instead of round, which it really is. Its trocar cannot be quite





withdrawn, although enough to clear the canula up to the aspiratory mount. This trocar fits the canula like a piston, so that when greased the instrument is airtight.

There are two objections to Thompson's as an aspiratory tapping instrument. One is that it cannot be made under a certain size; as, if made too slender, its trocar would be too weak. Another is that it is impervious to fluid until the piston is withdrawn; the consequence is, that if fluid do not appear in the index, the trocar must be pushed home again before the instrument can be thrust deeper. Now in certain cases every moment is of consequence. Another mount is an even more useful instrument. It consists of two sliding, but well-fitting, hollow steel tubes of different calibre. The outer one of these tubes is cut to a point at the end, somewhat like a quill-pen. To make the instrument work properly, its inner tube requires oiling before use, like Thompson's trocar; the oiling not only makes the instrument work more easily, but it is essential to the rendering of it, when the central tube is retracted, thoroughly air-tight. The inner tube is connected by a suitable mount with the aspirator. When fluid is reached, which is seen at once by means of the index tube, the inner tube is pushed home. The doing this thoroughly blunts the sharp distal end of the canula; the consequence of this is, that the instrument cannot wound the opposite wall of the cyst. It has an end of the same shape as a quill writing pen; it might indeed be very well called the quill-pen canula. I do not know whose invention it is; it would seem, however, to be of rather composite parentage. The maker of mine tells me that, of large size for tapping in ovariotomy, it is common in the "trade." Wells's ovariotomy trocar is a differently made and purposed instrument. Whether the instrument in the woodcut is merely a small edition of that which was shown to Mr Wells by Dr Fitch (U.S.), but adapted to the aspirator, it is impossible to say.*

Another addition to my instrument is the syphon tap. This was made for me by Mr S. Coxeter at my suggestion. The syphon tap is shown in the woodcuts on page 78. It is also shown in Plate VII., page 123, with the elastic tube attached. The latter should, as a matter of precaution, be filled with water beforehand, as the doing so renders the accidental ingress of air (during aspiration) an impossibility. If, however, the canula mount be kept well up, as shown in the plate, this accident could scarcely occur. The reader doubtlessly has noticed that there are two elastic tubes in the drawing. One is the syphon tube just mentioned; the other is a tube for conveying the aspirated fluid from the glass cylinder to the receptacle on the floor without splashing or noise. This latter may seem a slight matter. I do not find, however, it is so to the patient. The non-necessity for assistants and bandages, the absence of all muscular effort and excitement, and the absolute quietude of the operation, are—minor perhaps—qualities which are extremely pleasant to her. The pen canula makes the syphon arrangement a practicable one, which is not the case with the ordinary aspiratory needles. I may mention that an aspirator with two taps does not need a syphon tap.

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* *Op. cit.*, p. 336.

These additions have been made since my short work on aspiration was published.*

The aspirator which I use (see Plate,† p. 69) has a vacuum of two fluid cubic ounces capacity. It makes a good lasting vacuum; one that is very little affected after it has been set for ten minutes. Its piston-rod is graduated, so that the operator knows at a glance its contents. It is set by giving the fully withdrawn handle a half turn. This is a simple and at the same time efficient and strong way of setting the instrument. All its metal work is gold (electro) plated. This, of course, adds slightly to the expense, but it is a useful addition.

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* See footnote †, page 75.

† The instrument there shown was, I believe, the first and only one with a glass vacuum cylinder made by Messrs Coxeter. See pp. 76–7.

I have already referred to an important advantage of the aspirator with an unvarying vacuum over others, namely, that it can be used as an injector as well as an aspirator. This new capability, however, makes it desirable that all its metal work should be proof against corrosive fluids.

So much for the aspirator shown on the Plate. I will now briefly refer to Dr Dieulafoy's favourite instrument — his "rack-and-notch aspirator." In all essential particulars it is the same as that here shown. It is a less convenient instrument, however. It is not only considerably larger, but, being a more cumbersome instrument, it is of necessity placed on a stand. It is, therefore, less adapted to carrying about ; it is, indeed, better suited to the consulting-room or hospital ward than to the doctor's carriage or patient's bedroom.

The advantage of a large instrument over a small one—that is to say, of a large vacuum chamber over a small one—is not very great, and is indeed rather apparent than real. For so long as the vacuum is perfect the only practical difference is, that the smaller instrument entails more work during the time of aspiration. My opinion as to the superiority of the immediate or complete vacuum chamber over the incomplete one, remains unaltered; and I have had considerably increased experience of aspiration since I wrote the little work already mentioned, and I have with the little instrument shown in the plate drawn off, over and over again, the most varying quantities and qualities of fluid, both at single and repeated settings, quantities varying from a drachm to two gallons, I have repeatedly had an aspiratory needle retained *in situ* for more than an hour at a time, *it piercing*, be it remembered, *in many cases the peritoneum*, yet I have never seen any harm result. No pain except the first prick, at the time or after; no inflammation, no inconvenience. Yet the patient, in one case, rode four miles in a cab after each, and over London stones too. Need it be said, then, that I have confidence in properly-practised aspiration? The operation should of course be performed with due caution. I should not like a tyro at aspiration, merely because he was a medical man and had a pneumatic aspirator, to practise on my body. He should know his anatomy, for one thing, so as to be able to anticipate and to choose the structures through which he plunges his aspiratory needle or trocar, even if his instrument be a fine one. He should, in short, be able to diagnose beforehand, with a certain degree of precision, the nature of the case. These remarks are rather made as to the aspiratory tapping of ovarian cysts and other dropsies than as to experimental aspiration; which latter, practised with a sufficiently fine needle, is not only a safe proceeding, but is of great value in the diagnosis of obscure cases of disease.

A most important practical point—indeed, it is a necessity—is to guard against the admission of air into any cavity of the abdomen, peritoneal or cystic. This caution is by no means a needless one. When a large cyst is nearly or quite empty, it becomes *pro tempore,* during the act of inspiration, and if any mistake happen with the taps, in its turn an aspirator—at all events a possible one, and a somewhat powerful one too. I have never known this to happen in the range of my experience, and I do not believe, with the precautions I take, it could; still, I can quite imagine its doing so. I have on several occasions seen a drop of fluid in the indicator (Plate V., E) be withdrawn bodywards, in a most unmistakable fashion, during inspiration, when the aspiratory vacuum and the ovarian cyst have been pretty nearly and equally exhausted.

CHAPTER VIII.

Medicinal Treatment of Ovarian Disease. Intra-uterine Drainage: Case IV. Prevalent Medical Opinions on Medical Treatment. Specific Treatment.

It remains to make a few remarks on the medicinal treatment of these diseases. Cystic ovarian dropsy is generally regarded in the profession as not being amenable to any but surgical treatment. I shall, however, show what the current opinions are further on. With this view I do not, however, at all agree. I believe, on the contrary, that they are in a great many cases very much benefited by specific treatment, at all events in their earlier stages. Even in advanced cases, up to a certain period, well-chosen remedies exercise very considerable power over the growth of these tumours. By "*specific* remedies" I mean such as are chosen because of their specific relationship to some peculiarity of the patient's constitution; that is to say, which are specific to the particular dyscrasia of the patient's constitution, as well as medicines which are indicated by the local disease symptoms.

It is not now my intention to enter at any length into the question of medicinal treatment. To do so properly would take up more room than the whole of this work affords.* There are so many remedies which are of use in these cases that the practitioner who wishes to successfully treat this (ovarian)—or indeed any other organic—disease specifically and successfully must know well, to begin with, the effects of his drugs upon the healthy, before he can employ them with success in disease. There is no royal road to knowledge, and I must say that I distrust considerably what are called "keynotes." Take two latter well-known illustrations—*Arnica* and *Lycopodium*. I only speak of course of my own experience; however, *experientia docet.* I have given *Arnica* a good trial in repeated cases of whooping-cough characterized by screaming before the fit of coughing.† I do not remember to have been satisfied with this result on any one occasion. Under the same circumstances I have given tinctura opii 2x, 1x (and even the stronger tincture), and I am glad to say with excellent effect in a great number of cases. I was led to its use by the conviction that the screaming, in these cases, is the result of the little patient's fear of being choked by the imminent attack. Then as to the "fan-like motion of the nostrils" of *Lycopodium*. I do not think that, guided by this latter keynote, I have been more successful with *Lycopodium*, in the treatment of diseases thus characterized, than I have been with *Arnica.* Yet I have exhibited both remedies in the most varying potencies, from the 200th and 30th downwards.

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* If this work be favourably received by the profession, I may be tempted to write a *continuation* on the medicinal treatment of the same diseases. I feel somewhat doubtful, however, whether this work will prove of sufficient interest.

† Child cries before it coughs.

Before mentioning the medicines which have been found by myself and others serviceable in these diseases, I have a remark or two to make upon the manner of their exhibition. I have little doubt that the great majority of my professional brethren administer medicines *per ore* only; I need hardly say that I do so in most cases, in as far as regards constitutional treatment. In addition, however, I employ medicated local applications; and, indeed, find their use decidedly efficient. I have found medicated—both rectal and vaginal—suppositories very useful in many cases. I have employed them both specifically and palliatively. As an instance of the latter, I would mention the use of suppositories containing carbolic acid, in cases where there is an offensive discharge. Case IV. is an illustration of their value. It is one of natural drainage.

This case reminds me that ovarian dropsy is sometimes prevented by a natural or rather an unartificial process of intrauterine drainage. I have such a case at the present time under my care. It has continued now for more than a year. I have no doubt that the patient would have presented somewhat the appearance shown in Plate VI., page 99, if, instead of the fluid draining away, it had been retained and had accumulated in one or more ovarian cysts.

CASE IV.

Mrs T., æt. over 50, of Hornsey Rise, consulted me in October of last year on account of what she called an "abominable discharge of whites." It came in gushes whenever she moved more than usual—sufficient, in her own words, to "fill my boots." It was of a most offensive character; so much so, that she had been obliged continually to leave her work-room, where were three or four others, her own (grown-up) daughters, too. Examination of the abdomen showed no general enlargement, but there was some tenderness to pressure in the left inguinal region, where also a small hard lump (the left ovary) could be felt. The fluid was quite different from all ordinary leucorrhœal discharges. She stated that she had for a long time used more "changes" *per diem* than she ever did when her menses were on; that, in spite of what she wore, the fluid would, when she exerted herself more than usual, pour from her, as already stated. The fluid was not clear, but thick, brownish, and quite fetid.

As this patient is still under my care, I shall only observe concerning her case, that the medicinal treatment pursued has been effective in the lessening of the discharge, and that since she has used antiseptic suppositories it has been no longer offensive.

As for the medicinal treatment of these diseases usually practised, it is unnecessary to say much. So far as that of ascites is concerned, it is only necessary to refer the reader to the perusal of his favourite "*Practice of Physic*," as the subject is foreign to the scope of this work. I will, however, add a few words as to the treatment of ovarian dropsy. The medical authorities of the schools do not say much, so far as I know, about medicinal treatment at all. The late Sir James Simpson seems to have been strongly opposed to any medicinal treatment of multilocular ovarian dropsy. I do not think, however, that he was much in favour of any treatment of this disease, except palliative. I know that he strongly cautioned a patient of mine against having ovariotomy performed. Sir T. Watson says, in his "Practice of Physic,"* that he has treated such cases of ovarian dropsy assiduously with the "remedies of chronic inflammation." As it is not very evident, however, what the writer means by these remedies, I will quote what follows:—"I have treated such cases assiduously with the *remedies of chronic inflammation, frequent topical bleedings*, and *the use of mercury till the gums were affected;* with the remedies of *ordinary dropsy, diuretics*, and *drastic purgatives;* and with remedies accounted specific, the liquor potassæ, the various preparations of iodine." Following close upon this list of "remedies of chronic inflammation," our author goes on—"I must honestly confess to you that I am unable to reckon one single instance of success."† Such is the reflection of one of the most orthodox of physicians and living medical writers.

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* Vol. ii. page 412.

† *Op. cit.*, p. 412.

CHAPTER IX.

CONCLUDING REMARKS.

Additional Remarks on Diagnosis; on Incision and Ovariotomy; on Tapping Instruments; on Exploratory Aspiration; on Care and on Tact. Advantages of Progressive Aspiration; the Author's other experience of it. Case of Spina Bifida.

THERE are some points upon which I have made remarks in this volume which are pre-eminently deserving of the reader's attention. I shall refer again to a few of these, even at the risk of repetition. First of all, in regard to diagnosis, there is that of its relative importance under varying circumstances. There is a remark on this point in the fifth chapter which is, I think, especially deserving of the reader's attention (p. 47). It is not difficult to understand that a wrong diagnosis, where incision and ovariotomy are intended, and if the diagnosis be affirmative of ovarian disease, is not a light matter. An error of judgment under such circumstances is likely to result in more than the mere failure of the operation. Simple abdominal incision is somewhat less dangerous than ovariotomy, but it is so only inasmuch as the wound it gives rise to is a less extensive one. A like error, where the ordinary tapping operation is intended, is also not without danger, although not nearly so great as in the former case.[*] Paracentesis is not thoroughly safe, even when Thompson's air-tight trocar and canula are employed; unless an exceptionally small-sized one be used. There is a description of the one I use in a previous chapter;[†] as its use, however, involves the employment of the pneumatic aspirator, the operation is no longer one of simple tapping. With aspiration it is different. I have already referred fully to the safety of aspiratory paracentesis.[‡] The small-sized trocar and canula, and the "quill-pen" canula there described, in conjunction with aspiration, have both proved thoroughly safe and reliable instruments in my hands.

For exploratory purposes, at all events, in the first instance, I prefer a moderately fine aspiratory needle, say a No. 2, 3, or 4. As to the safety of aspiratory exploration, I have nothing more to add here to what I have stated concerning it already.[§] Of course I suppose the operator to know his anatomy sufficiently well to avoid wounding the epigastric artery; that he will not apply his needle below the umbilicus in the middle line, if the patient have a full bladder; that he will not thrust it in where percussion gives a bowel note, etc.; that he knows what he is about; that he can detect fluctuation, and knows how to percuss;—in a word, that he is not a surgical ignoramus.

I may perhaps advantageously add a word or two here to the remarks I have already incidentally made in the course of the preceding pages,* and this even at the risk of repetition, as to the good qualities of pneumatic aspiration in cases of ovarian dropsy and acites, and especially so in relation to the method advocated in these pages.

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[*] See Chapter VII., p. 68. [†] *Ibid.* [‡] *Ibid.*
[§] *Ibid.*

It seems to me evident that repeated and moderate or progressive aspiration is, as a rule, better than immediate and exhaustive tapping. For instance, it causes less shock to the system, and disturbs the different functions of the body less. It enables the heart, the lungs, the digestive organs, the stomach, liver, etc., and notably the kidneys, to imperceptibly adapt their action to the altered condition of things consequent upon diminished pressure.

Then there is no pain attending pneumatic aspiration, although this is of less consequence. Then it is very rarely, hardly ever, that any harm results. There were never any symptoms of local inflammation (peritonitis) experienced in either of my cases; although in one I have practised aspiration twenty-three times. Such a result would scarcely be possible with any other method of operation.

These cases are, I believe, at this time almost the only ones of their kind. I know aspiration is reported to have been practised in two cases of ovarian dropsy before in the work so often referred to.† They were, however, rather cases of aspiratory tapping than progressive aspiration. Of these two cases, one occurred in Dr Dieulafoy's practice, and one in that of M. Duplouy.

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* See pages 23, 26, and elsewhere.

† Dieulafoy on Pneumatic Aspiration.

It was a question with me, during the progress of Case V., whether rupture of the ovarian into the peritoneal sac took place or not; or whether at some aspiration (especially on that of 13th Nov.) a fine fistulous communication was not established between the encysted and peritoneal sacs. I incline to the opinion that the latter was the case. My reason for so thinking is, because of the varying nature of the aspirated fluid.

At first it was all serous. Then it changed in a most irregular manner. For instance, on the same occasion, it has happened to be serous at first, and purulent at the end. Another time the fluid was all purulent, and consisting of thick, grumous, and most offensive fluid, necessitating the free use of carbolic acid. On another occasion it was half-and-half, a mixture of serous and purulent fluid.

Besides these changes in the character of the fluid, there were the sensations of the patient. She had a feeling as if fluid were trickling within her abdomen. Now, was not this really happening?

It is necessarily too soon to speak positively as to the ultimate success of progressive aspiration, as applied to the treatment of ovarian dropsy. However, all that I can say at present is, that so far as my experience goes, it is an admirable one. This opinion is warmly shared by a medical friend, who watched closely two of my cases. Mr Miles—the gentleman referred to—in a letter to me, says, "I consider it (case V.) a most remarkable case, and certainly the treatment of it speaks volumes in favour of aspiration."

It may not be altogether without interest, if I refer very briefly to my experience of the safety of pneumatic aspiration in some other diseases. I have employed the aspiratory needle to break up, to inject, and then to aspirate the contents of several small tumours. I have aspirated the contents of quite a number of abscesses in all parts of the body, but especially often about the breech and perineum.

I have not, however, been fortunate enough to have an opportunity of practising it in any case of urinary retention, nor of strangulated hernia. I should have employed it in a case of the former (consequent upon bad traumatic stricture), a few months since, if it had not been for the over zeal of the patient's landlord, who carried him off *vi et armis* to the nearest hospital; where relief was afforded in the ordinary manner—*per rectum.*

CASE XV.—*Spina Bifida.*

At the present time I have an interesting case of *spina bifida*[*] under treatment. In aspirating it I have been assisted by my nephew Dr Washington Epps. I have as yet (12th Aug.) only aspirated three times.

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[*] In case the reader's surgery is a little rusty, I will venture to observe that *spina bifida* is dropsy of the spine (*hydro-rhachitis*).

The first aspiration was on 23d July, when a limited tapping of about six drachms was effected with a half millimetre (No. 1) needle. Strappings of *Diachylon* plaster and a tight roller were then applied. I used on the next occasion (30th July) a No. 2 (one millimetre) needle, and fastened the little patient's body and legs with a roller to a cushion, face downwards, to prevent his struggling. The No. 1 needle being so extremely fine made the first operation a tedious one, and the age (as stated below), unusual vigour, and unruliness of the infant made it a somewhat difficult one. The difficulty was increased by the necessity of applying firm pressure all the time of operation to the tumour, so as to counterbalance the aspiratory action of the child's breathing. This latter was very marked. Fortunately it did not take me unawares, as I had observed the same thing when tapping Case XI., and have there referred to the circumstance. Accordingly, when I saw a drop of water travel the glass tube bodywards, I grasped the tumour firmly, when the ejaculation of the cephalo-rhachidian fluid at once commenced.

The struggling of the patient at the time of my first aspiration, and his uneasiness afterwards, caused drainage to take place through the strappings for several days. There was still oozing on the 27th, although the tumour was filling again. For this reason, no aspiration was practised on that occasion.

At the second aspiration, 30th July, I removed eight to nine ounces of fluid. Pressure was kept up all the time with the hand, and a roller was firmly applied afterwards. The child was sick after taking the breast. He did not lie as if dead, however, as at St George's; although he lost consciousness, and the pupils of the eyes were slightly contracted—so my nephew thought—for about twenty minutes. His breathing was not stertorous.

Aug. 9.—Third aspiration. Present, Dr W. Epps and Mr Miles. The bag of the tumour seemed to be thickened. This was shown by its less translucency, although the aspirated fluid was as transparent as before. The withdrawal of five and a half ounces of fluid exhausted the tumour. The same precautions as to pressure were adopted as before. The child was not sick afterwards, and seemingly not in the least affected by the operation. To come again on 20th August.

Aug. 20.—Fourth aspiration. Removed nearly six ounces of fluid. The child took the breast vigorously afterwards. He was not sick afterwards, and the pupils were not contracted.

E. C. Hester, of Bradmore Grove, Hammersmith, the little patient, is 11 months old, and is a very healthy and well-made boy in every respect, excepting the tumour—*e.g.*, he is not at all ricketty. Exhaustive aspiratory tapping has been twice practised at St George's Hospital,* but not satisfactorily. From what the mother said, I should think considerably more than half a pint of fluid was removed on each occasion. She stated that the child lay as if dead on her lap for quite ten hours after each operation. She stated further that the fluid was again secreted very rapidly, so that in from twelve to fifteen hours the tumour was as large as ever.

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* Hyde Park Corner.

It is of course impossible, at this early stage of the treatment, to say anything definite in the way of prognosis.

One thing is certain, and that is that the second, third, and fouth operations were complete successes. It is true that the child cried vigorously during the latter part of them, but that was all, and was on account probably of the irksomeness of his confined position. In no other respect was he one whit the worse for what was done to him.

Another encouraging circumstance is, that the tumour remained empty for a longer time after my second and third aspirations than after either of the others. The mother states that there was no sign of its refilling for four days after the second aspiration, nor for three after the third. The fluid took therefore six or eight times as long to re-accumulate as it had done at St George's.

The operation, whether the treatment be ultimately successful or not, will of course have to be repeated several times. The question is, whether repeated moderate aspiration will not be more successful in exhausting the super-secretive power of the membrane than exhaustive aspiratory ones have been. This remains to be seen. There is certainly better ground for hope now, after my fourth tapping, than there was after the first. If progressive aspiration and pressure do not cure, I shall not hesitate to do "something more."

The child's mother told me, at the first consultation, that, at St George's, the surgeon said that as two aspirations had had no permanent effect, he should do "something more." Her husband wished to know what "something more" meant, the so long-continued insensibility after each tapping having alarmed both parents not a little. Besides this, a nurse at the hospital had told the mother of the deaths of two infants with *spina bifida*, from the proposed operation (probably the injection of iodine), just before. Whether the child's freedom from subsequent stupor on these occasions was due to the fineness of the needles employed by me,* which retarded necessarily the flow of fluid, or to the limited character of the aspirations practised, or to the effectiveness of the pressure applied *at the time and afterwards*, or to all three causes, I do not know. I have departed from my usual rule of not naming the patient in this case, there being nothing in the slightest degree of a private nature about it, and its subject being one of my free morning patients.

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* It certainly assisted; for the scars left by the two first aspirations were larger than either of my three, although the latter were not nearly so recent.

CHAPTER X.

CASES.

CASE V.—*Ovarian Tumour and Dropsy.*

I saw Mrs —— last September (1874), at the request of Mr Thomas Miles,* the patient's regular medical attendant. The case was described to me as being of a most serious description. Very little hopes were entertained of the patient's recovery; or even of her living over the following Christmas. Temporary relief from tapping was supposed to be the only possible treatment, the patient being determined not to run the risk of a radical operation (*i.e.*, of ovariotomy). A fatal ending, therefore, at no distant period, was considered certain. At the same time it was evident that relief—and, moreover, prompt relief—was absolutely necessary, general dropsy (œdema), dropsy of the peritoneum (ascites), and fluid round the heart (hydropericarditis) having set in. My friend Mr Miles indeed told me, that he had for some time considered it impossible for the patient to live until Christmas (1874). The previous history of this case

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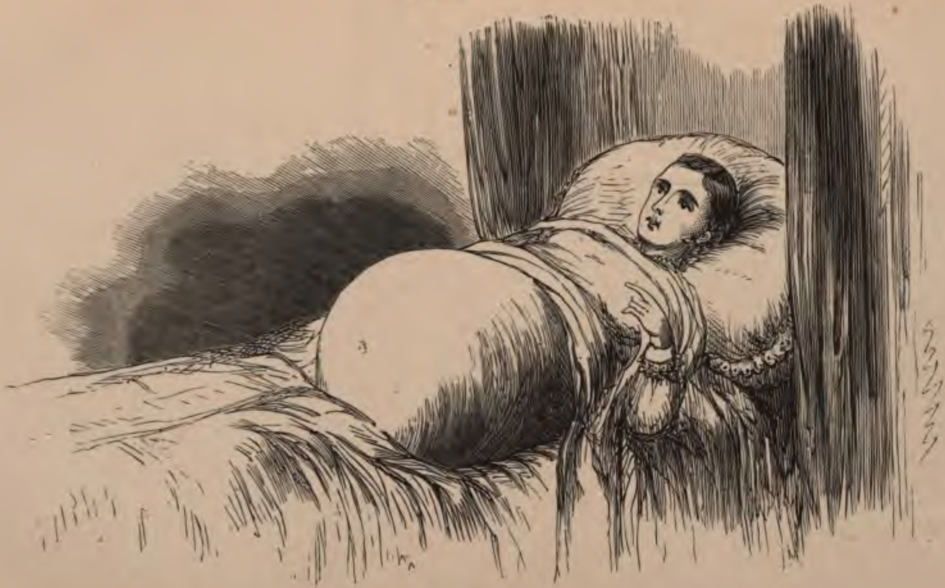
* Of Reading, but temporarily retired from active practice.

PLATE VI.



CASE V.—APPEARANCE OF THE ABDOMEN IN SEPTEMBER 1874.

was as follows:—She had been examined when eighteen years of age by the late Dr John Epps, who had stated it as his opinion that there was then pronounced disease of the left ovary. The patient, before marriage, at that early period of her history, lived, I believe, in Wiltshire. The disease thus discovered had slowly but steadily advanced. Eighteen or twenty years elapsed before fluctuation was recognised—not, indeed, until she was thirty-seven. From that time the increase in size was marked. This was shown by the circumstance that, at the time of the first consultation (September 1874), she measured 53 inches in circumference at the umbilicus.

I shall, in the first place, state briefly what were the aspirations practised. I may mention here, that the plate gives a good idea of the appearance of the patient's abdomen just before the first operation.*

Sept. 17.—Aspirated fifteen ounces of nearly clear, pale yellow, serous fluid, containing floating flakes of cholesterine. The patient having first emptied the bladder, I inserted a fine aspiratory needle: I used on this occasion I think a No. 2. This was, however, rather an aspiratory exploration than a tapping. The puncture was made in the middle line, and a bandage was applied after the operation. She lay upon her side in bed, as shown in the plate, and stated that she was quite comfortable all the time; indeed, she chatted away, quite gaily and naturally, after the first operation. I doubt whether any patient ever did the like, whilst undergoing the ordinary operation of tapping. Indeed, she suffered no pain on any of the twenty-three or more times that aspiration has been practised. Therapeutically, I advised the administration, until the next operation, of *Arsenious acid* and the tincture of *Baptisia.*

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* It and Plate VII. are not, of course, in the least likenesses.

Sept. 23.—Aspirated about two pints of fluid similar to the last. Continued medicines as before.

Sept. 29.—Again aspirated the patient. Drew off two pints of fluid like the last. Continue medicine.

Oct. 8.—Aspirated about six quarts of fluid, but somewhat thicker. The patient was not so well after this operation. There was a decided increase of (hectic) fever. The pulse went up to 130. There were profuse night sweats, and the secretion of urine was diminished. This confirmed me in an opinion I had already formed—and, indeed, expressed to a medical friend—namely, that I believed the secret of success in these cases would be found to consist in the observance of the rule of small but progressive aspiration.

Oct. 16.—Aspirated again two pints of fluid. I believe the *Arsenious acid* was continued all this time, but my notes do not say. The fluid on this occasion was of a mixed character, consisting principally of serous fluid, but with a slight admixture of pus.

Oct. 21.—Aspirated three pints of fluid similar to the last, but a trifle more purulent.

Oct. 27.—Aspirated three pints again. The fluid was like the last, but offensive.

Nov. 4.—Aspirated sixteen pints (two gallons) of very offensive purulent fluid. I took this large quantity on account of the offensive character of the fluid, and of the patient's symptoms.*

Nov. 13.—Aspirated eight pints of somewhat offensive fluid. There was on this occasion a sudden cessation to the flow of fluid—not due, however, to the stoppage of the needle. This I proved by reversing the current.

Nov. 17.—Aspirated four quarts of mixed serous and purulent fluid.

Dec. 2.—Aspirated twelve pints of extremely fœtid fluid. It seemed to consist entirely of pus.† Hitherto I had employed a steel needle. On this and many subsequent occasions I used a small trocar and canula. I had this one made both longer and of smaller calibre than usual on purpose for this case. When the silver canula was withdrawn it was quite black. This latter circumstance proved the purulent character of the fluid. It was also evidence of the time that a fine silver canula can remain *in situ without doing any harm*—for a longer time, indeed, than an hour. It cannot be too strongly impressed on the reader that *no ill consequences ever followed these long aspirations.* The patient was greatly relieved by this last operation. A few days later, however, the old hectic symptoms returned, showing that a fresh accumulation of pus had occurred.

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* See also the quotations from letters and remarks further on.

† See remarks further on.

Dec. 9.—Aspirated nearly a gallon (7¾ pints) of fluid like the last.

I took away on this occasion all the remaining fluid. The abdomen was, of course, quite flaccid, and its walls hung in great folds. Through these the remaining solid mass of the diseased left ovary could be readily grasped and felt. This body was of an irregular oval shape, about three inches long, and an inch or a little more thick. My next "note" is dated 14th December. It states that the "patient looks well; pulse 80; tongue clean; appetite good." I received a letter from Mr Miles, a fortnight later, in which he says, "As to the abdomen, I do not think it is any larger, nor do I detect any fluid at present, so that I am led to hope that it may not accumulate again.* One thing is certain, and that is, that the enlargement which had always existed on the left side is gone."

When I saw the patient on 24th December, she was of just the same circumference at the umbilicus and in the centre of the hypogastric region that she was after the previous aspiration (9th December). For the flaccidity of the abdominal walls, already noticed, she wore a well-fitting and moderately tight bandage. This not only afforded support to the parts, and so comforted the patient, but it was of further use by keeping up continuous and well-applied pressure.

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* In this opinion my friend was too sanguine.

The following was the state of my patient at this date :—She had acquired, for the time at all events, her proper figure. All the hectic fever symptoms, the thready evening pulse (of 130 to 140 the minute), the constant thirst, and the sweats, had disappeared. The tongue had become moist and clean. The urine was in proper quantity, and of normal quality. She enjoyed her regular meals, which she had not done for years.

We will now go back to the early state of the patient, *i.e.*, previous to the first operation (17th September). A very careful examination on 9th September convinced me that there was effusion in the peritoneum (ascites), and in the sac enveloping the heart (hydropericarditis); in addition, of course, to the already recognised encysted tumour of the left ovary. This tumour consisted of a large ovarian unilocular cyst. This seemed as though it had risen up and were floating in the fluid of the peritoneum. Indeed the abdomen was so fully occupied, what with the encysted and what with the peritoneal dropsy, that it was difficult to understand how its normal contents performed their respective functions. I have only here to observe, that the correctness of the foregoing diagnosis was confirmed by the subsequent history of the case.

Having thought out the case on my journey home from the suburb where the patient resided, I resolved upon a line of action. This was, I should say, entirely based upon the method of pneumatic aspiration.

The plan I resolved upon was as follows:—First, to practise one or more exploratory aspirations, to ascertain the nature of the contained fluids. That supposing the result of these explorations to be favourable, aspiratory tappings should be practised at short regular intervals. That only a limited quantity of fluid should be removed on each occasion. That as far as the fluid removed on successive aspirations should be in increased quantities. In fact, I resolved upon practising what I have already alluded to several times in this work, namely, *progressive aspiration.* It seemed to me that I should thus gradually habituate the patient's vascular, glandular, secreting, and absorbent systems to the removal of this immense body of fluid. It seemed probable that she would not feel these small and repeated losses of fluid and of pressure in the same degree that she would the result of an ordinary immediately exhaustive tapping. I hoped thus to diminish gradually and safely the abnormally developed secreting power of the different serous membranes involved.

The following is part of a letter I received from Mr Miles in answer to mine, in which I had proposed the foregoing plan of treatment. It gives some interesting particulars about the case.

"MY DEAR FRIEND,—I thank you very much for the interest you take in Mrs ——'s case. As to the nature of it, I feel convinced it came on in the form of ovarian dropsy, but now I am of opinion that there is fluid in the peritoneum. I find, however, that all writers have agreed that in a case of long standing it is with great difficulty distinguished from 'ascites.'" [This was in allusion to my diagnosis of ascitic as well as cystic effusion. The result has fully proved the correctness of my diagnosis.] "Be this as it may, one thing is certain, that the pressure produced by such an immense quantity of fluid must necessarily interfere with the functions of digestion, etc., and I have long had a desire to have it removed, but the patient has shrunk back from it. She now, however, is desirous to have it done; and if you therefore feel at liberty to do it, please bring your instruments, including lint, etc., as I have dispensed with all, until I get a fresh supply." [This was in allusion to his abandonment of practice. The letter further contains some interesting information as to the patient's symptoms.] "I find the urine passed in twenty-four hours is about 30 ounces, sp. gr. 1·020, no albumen nor phosphates. The heart's action on first lying down is feeble, but it soon gets stronger. Respiration free and easy, and she can lie with her head low, without any difficulty. The only inconvenience is in turning from side to side. There is, however, frequent micturition on lying down, or at least frequent desire to urinate, but no pain. Her appetite is pretty good; bowels disposed to be confined, with great fulness of the veins of the abdomen. No œdema." It was not long, however, before anasarca showed itself, and very fully, reaching to above the waist, and preventing flexion of the knees, and even partially of the thighs on the abdomen. Repeated aspirations, by the removal of pressure from the kidneys and absorbents, enabled the system to eliminate the whole of the fluid. The letter proceeds: "I measured the abdomen last evening; it was the same as when you last saw her (53 inches), except just under the ribs over the epigastrium, which I think was rather larger, say $\frac{1}{8}$ inch; should you therefore feel disposed to remove the fluid* at your next visit, she will be prepared for it, etc., etc.—I am, my dear friend, etc., THOMAS MILES."

I have already stated the results of the first twelve aspirations practised in this case. The further progress of the case is shown in the following extracts from letters, from the patient's medical attendant. In a letter dated 28th September my friend says, "Mrs —— continues in much the same state as when you last saw her; certainly no better, except the pulse, which has descended to about 99 at rising, and 106 at bed-time. The tongue continues to be very coated, especially at rising. The coating consists of a white fur on either side, and a dark brown streak down the centre, from root to tip. It is moist during the day, but at rising the brown streak is dry, and rather disposed to present a cracked appearance. . . . The chief trouble is the weight and burning at the bottom of the abdomen and round the sacral region. This is always worse at night, and at times almost unbearable. The abdomen has increased about one inch since the removal of the fluid," etc., etc. The next letter * is dated 1st October. It stated that the patient "is about the same, or perhaps rather better. Her night was certainly better," *i.e.*, more sleep, and less inconvenience from the abdomen. The pulse was at this time 90 in the morning and 110 at night. It was at this time that general cellular dropsy began to show itself. The letter alludes to this. "The œdema in legs is increased slightly; urine is rather scanty, but retained with greater ease than before the fluid was removed."

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* Mr Miles knew nothing of "progressive aspiration" at that time. He naturally supposed, therefore, that I intended removing the whole of the fluid at once.

The next letter (dated 5th October) stated that the patient generally has "improved slightly in all the symptoms."

The urine diminished at this time to eight ounces in twenty-four hours, and was loaded with lithates. It was at this time that I first practised a large aspiration, viz., 1½ gallons. I was induced to do so by the thorough success of the operations, and by the unimpaired cheerfulness of the patient, in fact to "make hay while the sun shines." This was, I think, somewhat of an error on my part.

The next letter (10th October) commences—"After you had left on Thursday, the pulse rose up to 116, full and bounding, and continued so during the night; but it gradually returned to its usual number towards morning, after taking a few doses of *Aconite*. She felt greatly relieved by the removal of the fluid, and *there*

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* As a rule I received one, and sometimes two, after each operation.

has been no symptom indicative of peritoneal inflammation." Further on, it is stated that "the urine is certainly more, viz., about 1½ pints (thirty ounces) in twenty-four hours." The improved good action of the kidneys continued, one consequence being the gradual disappearance of the subcutaneous dropsy.

Oct. 15.—" The kidneys have been acting vigorously since your last visit. Consequently, the œdema is diminishing, and I think the abdomen is also somewhat smaller." The pulse, which at this time was 94 in the morning and 108 at night, however, increased during the ensuing ten days, and there was rather free perspiration at night.

The report of 2d Nov. states—" The pulse increases in frequency. It ranges from 96 to 117, and towards evening goes up to 120 ; and during the night it is even more than this (130 to 140), and very weak—indeed, hardly perceptible to the touch ;" that the " breathing continues very rapid when she is sleeping." The symptoms continued somewhat the same, somewhat fluctuating, but still improving. The superior policy, as a rule, of practising small but regular over large tappings, was proved by what occurred at this time. On 4th Nov. I removed, as the reader knows, two gallons of fluid. This was followed by an increase of fever during the night, and by a diminished secretion of urine. This latter was noticeable, as it was the opposite of what had hitherto happened after gradually increased but moderate aspirations.

Since December the history of the case has been as follows :—

Dec. 30.—Visit. No notes.

Jan. 6, 1875.—Performed the thirteenth aspiration. No notes. Some half gallon of offensive fluid was removed.

Jan. 8.—Had a favourable report. Continue treatment.

Jan. 14.—Improvement continues. Continue medicine.

Jan. 21.—I saw Mr Miles at my house. He reports the patient to be somewhat uneasy, and to have a slight return of the hectic symptoms.

Jan. 28.—Visited. Drew off and emptied sac. Less than a pint of fœtid fluid was, however, abstracted.

Feb. 4.—All the hectic symptoms quickly disappeared after the operation.

Feb. 12.—Visited. Aspirated two quarts of fluid, besides a large quantity of inodorous gas. Each volume of gas was necessarily of the capacity of the vacuum chamber, viz., two ounces. As, in these cases, *I make it a rule to remove all the gas as well as the fluid,* the operation was both tedious and laborious for the operator.

March 3.—Visit. Removed 54 ounces of pretty clear serous fluid without smell. The peritoneal sac was left completely empty, and the firm substance of the ovary was easily grasped, as already stated, through the flaccid abdominal wall.

March 18.—Visit. Aspirated 34 ounces of similar fluid to the last. I believe that on this and the last occasion the fluid was all ascitic; also that the left ovarian tumour has disappeared. There was evidence.

however, I am sorry to say, that although the disease of the left ovary was apparently completely arrested, that there was commencing disease of the right one.

April 19.—Visit. Patient begins to get uncomfortable, and increasing in size.

April 27.—Visit. Disease of the right ovary is advancing. The old hectic symptoms are appearing.

May 12.—Again aspirated, through the quill-pen canula, two pints of fœtid purulent liquid.

May 28.—At my visit removed in the same way six pints of fluid like the last.

June 24.—Visit. Aspirated more than two quarts of puriform fluid. There had been a considerable and increasing access of hectic for a fortnight previously. The pulse just before was 90, and after 100. The temperature, 102° F. and 103° F. respectively.

July 15.—Visit. Aspirated for the twenty-first time a quantity of fluid like the last. Temperature, 99·4° F. before, and 100·6° F. afterwards. An improvement on the last time. The basis of the medicinal treatment at this time was the *Calc. phos.* 1 x.

Aug. 3.—Visit. Twenty-second aspiration. Fluid same as before. About two pints. Patient might have waited longer, but had felt feverish, and wished to have relief. Has passed two uric acid renal calculi. To continue *Calc. phos.* 1 x.

I regret not to have taken on previous occasions the temperature before and after each aspiration, the same as on the two last. I shall certainly make a point of doing so in future in similar cases. As suppurative fever cannot really exist without increase of temperature, regular thermometrical observations would probably be of considerable value, in respect to both diagnosis and prognosis.

The reader will have noticed that the temperature increased a degree during the operation. I do not think this was due alone to the small quantity of stimulant* taken at the time. For though the temperature was not taken exactly on previous occasions, there had always been noticed a temporary increase of fever—at least for the next four to eight hours. This had been shown by the touch and pulse.

The next day (25th), the patient was as cool and comfortable as if she were in perfect health. The appetite and the urinary secretion, which had greatly flagged and diminished for some days before the operation, had both become normal.

CASE VI.—*Case of Repeated Cystitis, Ovaritis, and Drainage per intestinum.*

Mrs E. W. first consulted me in July 1870. She stated that she came to consult me at the instance of Mr Willis, a well-known hard-working Christian missionary in the Hampstead district; he having told her of two cases of ovarian disease which I had cured without cutting, that he had met with in his rounds. She was then (1870) just turned forty years of age. It will be as well, however, in the first place, to state what was the previous history of her case. I will do so in her own words, as she wrote it out for me:—

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* Weak brandy and water.

"97 CARLTON ROAD, N.W.,
January 29, 1875.

"DEAR SIR,—My first operation was performed the last week in August, or the first week in September 1866. I was delivered of twins on the 2d of June 1866. I was worse after that for a long time. About half an hour after I was confined, dreadful pain came on, with flooding. On the third day after, a large substance, which at first was thought to be a clot, came away. The doctor examined it in the morning, and told me I ought to be soon better, for it was a substance of flesh and fibre. However, I was bad for a long time. There was a very bad pain in my left side, much longer than that in my right. After I was able to sit up, I did not seem to mend much. I went into the London Surgical Home * on the 1st of August 1866. They did not operate until the last week in the same month, on a Thursday, at two o'clock. I took chloroform. I then remember nothing until half-past seven, when I woke, of course in great agony at my lower part, and my head was something dreadful." She tells me that the operation consisted in the removal of a fibrous uterine tumour, and in the division of a fissure at the anus. The letter continues: "Sickness came on and continued until the following Monday, so that I had no food," meaning that she was sick after all food. "I did not sleep night or day for two weeks. A Mr Hooper performed the operation. I never slept without opium for a week after. My tongue was very much swollen. I then said to Mr Hooper, 'It is the pills that are killing me,' and I did not have any more given to me, and had to bear the pain without. I was in great danger for about a month. My tongue and throat were in a dreadful state, all over sores, so that I could not eat anything for nearly a fortnight. They got the medicine down me, also some wine and brandy. I knew I should soon be starved to death. The nurses never told the doctors that I did not eat. At last the courses came on. Then I had an attack of vomiting, and the doctors saw I had taken no food; for there was nothing but medicine came off my stomach." There is a good deal of unnecessary detail in this part of the record, the greater part of which is cut out. "Up to the 7th of October I was in great danger. Why I remember this date, is that the 7th October was my birthday, and that was my worst day. For three days I lay wide awake, night and day. I saw dreadful sights in broad daylight, and heard a noise of knocking. I can remember telling the doctor what I saw. On the 7th October it was worse than ever, until the evening, when my bowels were open. As soon as that happened I was quite calm. I always say that the last symptoms were caused by my bowels not being opened. From that time I got better. I was not able, however, to bear removal to my home until three days before Christmas, and then I could not walk across the room. I went back the year following, 1869, on Whit Monday. On the following Thursday Mr Baker Brown operated on me for a tumour in the left labia; he told me it was the size of an egg. Six weeks afterwards there was another operation upon the womb and bladder. Five or six weeks after that a small polypus was taken from the back passage (rectum), and a fissure divided at the same time, all without chloroform.—I remain, your grateful patient, ELIZABETH W."[*]

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* This was a private surgical hospital for women at Stanley Terrace, Notting Hill, London, where Mr Baker Brown (now dead) attended and operated.

Such is the patient's account of her case, up to the time of her consulting me. She stated further that she was under the late Dr (John) Epps's care for four months in 1864. I have my brother's notes of this case[†] now by me. The patient appears by these, as well as by her own statement, to have then derived considerable relief from many of her sufferings. Unfortunately, just at that time she met with an accident; she fell down and broke her ribs, and had to discontinue her attendance. The practitioner that attended her for the accident then persuaded her to go into Mr Baker Brown's private hospital. What happened subsequently has already been related.

Although her case has not required operative interference since 1867, considerable interest, surgically, still attaches to it.

She had, up to that time, been the subject of fibroid and fibro-cystic growths—uterine, vaginal, and rectal. These had been removed by operation, as already recorded. The subsequent history of the case shows that the patient suffered from repeated attacks* of inflammation, ending in suppuration, of the left ovary. No treatment, other than medicinal and locally emollient, was, however, at any time required. The pus which has formed on these occasions has been discharged in both ways—*per rectum et per vaginam.*

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[*] This patient attends my morning *clinic*.

[†] Case-book 1864, p. 1318.

It is unnecessary to say anything concerning the escape by the Fallopian tube and uterine cavity. With the evacuation *per rectum* it is different. The question naturally arises on this point, Whether there was a permanent fistulous opening between the ovary and the bowel, or whether the freshly-formed pus was discharged on each occasion by a new outlet. I incline to the belief that the latter was the case, although, of course, it can only be in any case an opinion. Whether this was so or not, however, it is certain that if the pus did not escape by an entirely fresh passage on each occasion, the opening of any recto-cystic fistula must have been thoroughly occluded between whiles, otherwise there would have been more or less daily drainage *per rectum.*

Although I cannot spare room to give a detailed account of the treatment pursued on each of these occasions, I may mention that which seemed to be the most generally effectual.

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* Probably thirty or forty since she has been under my care.

Actœa racemosa, *Belladonna*, and *Trillium pendulum*, and the same (all in strong or 1 x tinctures) according to the state of the patient's menses, have given the best immediate results.

Neither *Lachesis* in high dilutions—12, 30, and 200—nor *Apis mel*, both 2x and 12, ever did any good.

It is noticeable that there was the same want of result from these medicines in the case of Mrs T. (Case IV.). I may mention here, *inter alia*, as we are on the subject of treatment, although not that which immediately concerns us, that this patient (E. W.) was a frequent sufferer from rheumatic pain of the right shoulder; also, that I found it necessary to vary the treatment of it according to circumstances. When the attack came on at the month (just before and during), the exhibition of *Sanguinaria can.* and *Actœa rac.* always as a rule relieved. Further, that at these times the patient was dry, hot, and somewhat irritable. At other times *Sanguinaria can.* and the *Iodide of Potass.* were the more effectual. Further, that when the latter was the case, the patient perspired profusely. Tangible doses were latterly given in this case.

The benefit which this patient has received from my treatment, whilst under my care during the past half-dozen years, has been most marked.

CASE VII.—*Ovaritis and Peritonitis. Intra-uterine Drainage and Cure; on two occasions.*

Mrs F., æt. 34, when this history commences, was a widow, living with her parents at a village in Essex, near Epping. In 186–, Mr E., the patient's father, fetched me down to see her, believing his daughter to be dying. She had been ill for nine or ten days, during which time she had been under the care of a general practitioner in the neighbourhood. She had been treated during that time, I believe, with gray powder, effervescent salines, and opium; and locally with leeches and poppy fomentations to the abdomen. Examination showed the patient to have a tumour in the right inguinal and lumbar regions. It was hard and tender to touch; and, indeed, all that region of the abdomen was very sensitive to pressure. The tongue was dry, red, and glazed. There was considerable thirst and headache; at one time delirium. The pulse varied between 100 and 130. The temperature in like manner varied between 99·5° and 103°. There was, as might be expected, a total absence of appetite. She had forced herself, previously to my seeing her, to take some beef-tea and slops. These had all returned in spite of the brandy which had been added with the idea of keeping them down.

I can only speak generally as to the treatment pursued at this length of time. I took pretty full notes, however, of the symptoms at the time, from which the foregoing account is compiled. The treatment is only indicated by a word here and there. *Aconite* and *Apis m.* (probably *tinct. rad.* and 2 x respectively) seem to have been given for the first two days, with but slight effect, then *Tinct. Belladonnæ* and *Actæa rac.* were exhibited, for ten or twelve, with a few intercurrent doses of *Tinct. Podoph. pelt.* and *Tinct. Opii.* The local treatment I can remember well. It consisted in the elevation of the knees so as to keep the thighs well flexed on the abdomen, with a hassock and pillow; and in the constant application of large hot linseed poultices to the abdomen. This local treatment was kept up until the tumour was as large as a good-sized cocoa-nut. Then wrung-out hot flannels, with a few drops of turpentine sprinkled upon them, were applied for an hour at a time a few times, the hot poultices replacing them between whiles. At the end of about a fortnight from the time of my first attendance, a copious discharge of most offensive dark slate-coloured grumous fluid took place, which continued in lessening quantity for about a week. During this last period the swelling subsided altogether.

Afterwards I put the patient upon a course of the *Tinct. Hydrastis Canad.* and *Tinct. Cinchonæ sulph.*; under which treatment, in the course of about six weeks, she regained her normal state of health.

The attack was consequent upon exposure to cold and damp in the garden, at the time when the menses were due. Eighteen months later she had a second attack. Of this I have no notes. The treatment was doubtlessly much the same. The recovery was, however, much more rapid; partly owing, I believe, to the fact that I attended the patient from the first.

A year later, whilst on a visit to Millwall, she had a third but slighter attack. She has enjoyed good average health since.

CASE VIII.

Miss Betsy S., æt. 39, had an attack of inflammation of the right ovary in 187–. The symptoms were very similar to those of the case just given. It ran through the same course. The symptoms were hardly so severe, and the peritonitis was confined to the adjacent parts. She recovered much more quickly. The treatment was similar, but proportionately less active.

This patient likewise had a second, but much milder, attack.

CASE IX.—*Ovarian Dropsy and Albuminuria Cured without Operation.*

Mrs D., æt. 55, fol. 171, lib. 68. Ovarian dropsy (left). Œdema of the ankles. Night sweats.

July to Oct. 1874.—Cured. Took preparations of *Arsenious Acid, Iodine, Digitalis, and Apis mel.* Wore bandage with good effect afterwards.

CASE X.—*Metritis and Ovaritis, and Intra-uterine Drainage.*

M. E., æt. 40. Inflammation of the womb and right ovary; afterwards, great swelling in the right groin. A copious purulent discharge came away per vaginam, accompanied by neuralgia of the face. Cured with *Actæa rac., Belladonna,* and *Arsenious Acid.*

Case XI.—*Multilocular Ovarian Dropsy and Ascites.*

Mrs J., æt. 28, a Scotchwoman, and the wife of a carpenter living at M'Intyre Street, Glasgow. I first saw this patient on 28th December 1874. She had already, however, consulted me by letter, when I had advised her coming to London. She accordingly did so, and attended, being in humble circumstances, my morning *clinic* as a free patient. It was in consequence of this that all the aspirations which I have practised in her case have been performed at my residence. This of itself shows how devoid of any danger, and even of shock to the nervous system, is the operation in question. She had undergone a considerable number of these operations at my house when she discontinued her attendance.* She had not on any one of these occasions suffered pain or injury, either at the time or afterwards. On the contrary, she had already derived considerable benefit.

She lived during her attendance at Stepney, with a friend and countrywoman. As the suburb just named

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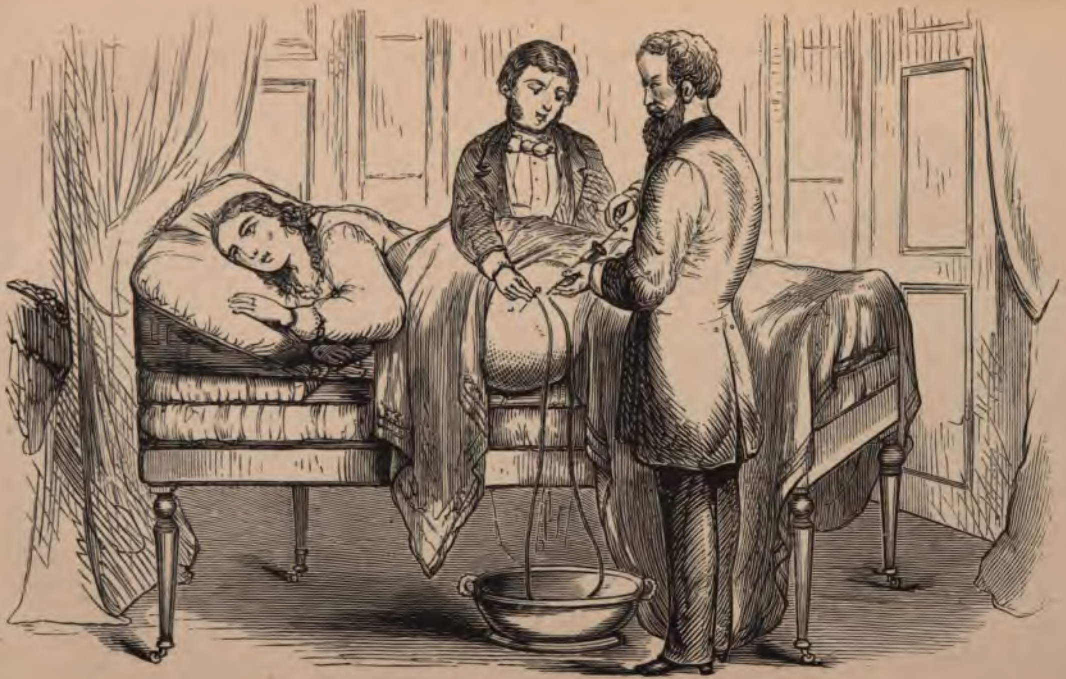
* She did so without saying a word; for she did not come the next week according to promise. Whether she was impatient of the treatment, it not being "cutting and rapid enough" to suit her liking, I know not. It is certain that I wrote to her London address and received no answer, although an old patient of mine lived there, and who doubtlessly took care of my note. It is possible, however, that she allowed herself to be persuaded to enter some hospital and be cut, and that she died in consequence. If this were not the case, I can only say that it is one of those instances of ingratitude, which make medical men weary of welldoing to the sick poor. This is, however, different from what occurred to Mr ——, related in the text above.

PLATE VII.



CASE XI.

is quite four miles distant, the ride after each operation showed plainly how little she was affected by it.

I have alluded to the circumstances under which I treated this patient. Perhaps a word of explanation may not be superfluous. It is this, that I make it a rule, like the late Sir Astley Cooper, and other physicians and surgeons, living and dead, to see the necessitous sick at my own house without fee every morning. I have done so for a considerable number of years, and do so still, although it is a privilege which is too often abused by the economically disposed. Indeed, I believe that Mr ——, who was Court Surgeon to King George IV. or King William IV. abandoned in disgust the practice of thus seeing the sick, having discovered by pure accident that an elderly gentleman, one of his "free" patients, came to see him in his own carriage, which, moreover, had a coronet on its panels. This patient had been in the habit of alighting at the corner of Charles Street, St James's, a few houses from that of his doctor. Much might be said touching the natural repugnance of gentlewomen and gentlemen to attendance at public hospitals and dispensaries. Not the least is, that the consultation, involving perhaps an examination and some slight exposure, takes place necessarily before others, *e.g.*, professional visitors and friends of the medical officer, medical students thirsting for information, etc.

To return to my patient. She felt so little inconvenience on the occasion from aspiration, that she proposed to go home in an omnibus, in order to save the cab-fare.

The notes of this case are taken from my notes. They are as follows:—

Case-book 1874, p. 176.—"Mrs J., a Scotchwoman; husband a carpenter; lives, when at home, in M'Intyre Street, Glasgow, at present residing at Stepney; æt. 28. Present is her second husband. Never pregnant. Before marriage, suffered from dysmenorrhœa" (painful menstruation). Always suffered much *in coitu;* since the cystic effusion set in, however, she has lived as a single woman. "Has consulted most of the medical celebrities of the north." Among others, she had three years before been under the late "Sir James Simpson of Edinburgh, and afterwards of his nephew and successor, Dr Alexander Simpson." I believe that the latter physician, as well as others, had advised her to undergo ovariotomy. She had, however, up to that time decidedly refused to run the risk. She had enjoyed good average health, although she had never been strong. The only serious illness she had had was rheumatic fever.

Urine passed every twenty-four hours averaged less than a pint. She was 41 inches in circumference at the umbilicus; stated that it was properly 24 inches. The whole abdomen is as much distended as it possibly can be. The enlargement is not uniform, and is greater below than above the umbilicus. Fluctuation is mostly very indistinct. It is only distinctly perceptible in one part, immediately below the umbilicus. It is evident there are several masses of considerable size of hard, indistinctly fluctuating, ovarian tumour. On percussion of the abdomen, sitting up or lying on her back, no bowel-note could be heard.

The case was one of multilocular tumour of the right ovary, consisting of three or four non-communicating cysts. There were in addition several hard, non-fluctuating masses. These latter very possibly were of a cancerous nature. This was the more probable that the patient's face bore that peculiar look which women of cancerous dyscrasia generally have, at least when the disease is more than latent. I feel also confident, as the result of examinations made at the time and later, that there were numerous adhesions. I have only to add that there was some effusion in the peritoneum, although it could only be detected with difficulty. The fact was, that fluctuation could be detected in the upper part of the abdomen when sitting, and also in the lumbar regions, but not in any position in the umbilical and hypogastric regions, except locally in the cysts.

Altogether, my prognosis was decidedly unfavourable. As regards treatment, I can scarcely think that any practical surgeon, experienced in these cases, would have ventured upon ovariotomy in this. My opinion was strengthened by what the patient told me namely, that Sir James Simpson advised her not on any account to submit to the operation. He did not, however, give her his reasons for the advice. Nearly if not quite all the practitioners, however, that she consulted subsequently advised her to have the operation performed. It was evident, however, that something must be done, and that if speedy relief were not afforded she must die. I therefore resolved upon aspiration. The further history of the case speaks for itself. I regret, however, that the unexplained absence of the patient prevents my giving a more complete account of her case.

The first aspiration was practised on the 8th of January of the present year at my house. I was assisted on this and subsequent occasions by Mr Miles of Reading. The patient lay on her right side, as shown in the plate (p. 123). The couch used was that shown in the annexed woodcut (p. 129) ; but not raised, and without the upright pieces. I should observe that I did not have the drawing made for this work. It is a very useful couch, both for examination and operation, to have in one's consulting room, and has met with the approval of several of my colleagues. Indeed my nephew has had a similar one* constructed, and by the same maker. My couch is a very solidly made piece of furniture. Indeed, if it were not so, its rack would give way, by a not at all heavy person's

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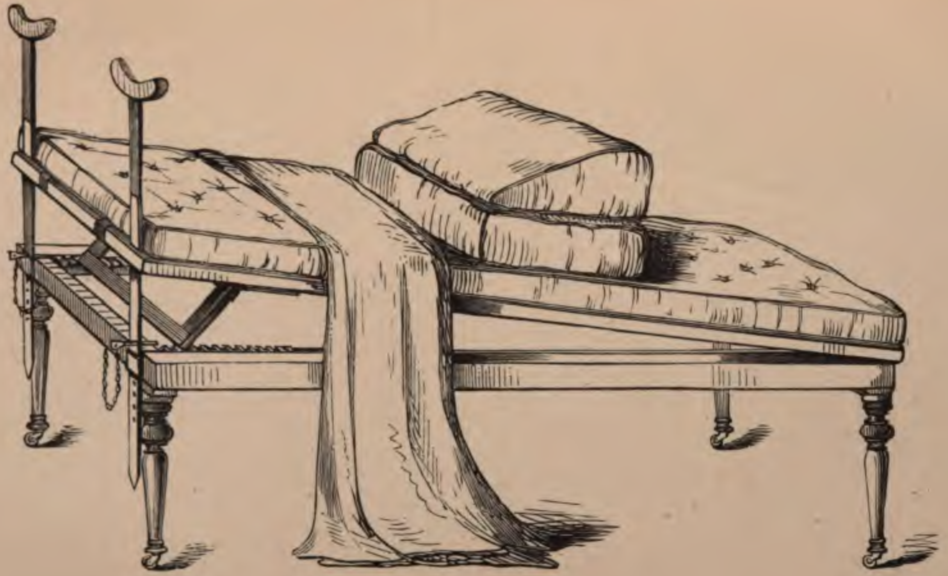
* As the reader may think to himself, What does it cost ? it will perhaps not be out of place if I state what was the price of the one here alluded to, namely, ten pounds—or guineas. Mine, I am afraid, cost more; but then, it was not made all at once, and improvements are always expensive luxuries to their authors.

PLATE VIII.



MY COUCH.

simply sitting upon it. I have had mine added to [*] and strengthened in various ways since it was first made for me some ten years ago. The merits of this couch consist in its simplicity of construction—there is nothing to get out of order; in its allowing of the mattress being firmly fixed at different angles of inclination, and of its uprights being fixed at different heights. The legs are made to screw into the frame. It has two moveable cushions of different shape, as shown in the woodcut.[†]

On the first occasion a No. 2 needle was used; afterwards I employed Nos. 3, 4, and 5, and at last the quill-pen canula. The insertions were made at those spots where fluctuation was most perceptible, below the umbilicus. Fluid did not escape at all freely on the first occasion. I had indeed to change the seat of puncture several times, and to use larger needles, before any progress was made; I should say that I was very cautious at first for various good reasons; in fact, I proceeded tentatively. The reader will scarcely wonder at my caution, if he consider the peculiar circumstances of the case. I inserted the needle, on the first two or three occasions, in the middle line (as shown in the plate), the only spot where fluctuation was at all perceptible. The fluid aspirated at first came away very slowly. My notes are:—

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[*] The constructor of the additions to mine was formerly the subject of stone. I removed two from his bladder by crushing in 1873. It was a curious case in more ways than one. An account of it has been since published under the title of "Case of Stone in the Bladder and Oxaluria, cured by Lithotrity and Hydrochloric Acid."

[†] These and the mattress are well stuffed and covered with horse-hair cloth.

Jan. 8.—"Aspirated eleven ounces of dark albuminous fluid; reaction neutral; boiling and acid gave a precipitate of about 25 per cent. of albumen. Specific gravity 1·020. Owing to the small size of the needle used on this occasion quite an hour was occupied in the aspiration of these eleven ounces. No pain or uneasiness was experienced either at the time or afterwards." The *specific gravity* of the urine at this time was the same exactly as that of the cystic fluid, 1·020.

Jan. 14.—Aspiration as before. "Removed two ounces of fluid like the last. This exhausted the cyst." I proposed to make another puncture at another spot, but at the request of the patient did not. "Again much inodorous gas was withdrawn." The presence of gas is always troublesome with aspiration. I have hitherto made it a point to remove all that I could,* and the doing so with the aspirator takes up a great deal of time, and is fatiguing to the wrist of the operator. On 21st January, the occurrence of the patient's function prevented any operative interference. Medicinal treatment as before.†

Jan. 28.—Had a good deal of difficulty in finding a promising spot for puncturing in the *linea alba.* I however aspirated fifty-two ounces of fluid like the last. There was still a good deal of gas, but less.

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* As stated already in my Notes to Case V., p. 111.

† Stated collectively at the end of the case.

Feb. 4.—My note-book says, "The immense masses of hard tumour near the umbilicus greatly impede the detection of fluctuation. At the most promising spot —close to the navel—it was indistinct." Nor was this all, for owing probably to the thickness of the cyst wall, no fluid showed itself in the glass index tube until the needle reached a depth from the surface of nearly three inches. Inserted a larger needle, and aspirated twenty-six ounces of fluid. Two more aspirations were practised this month (Feb.), but I have no notes of them. On each occasion I removed some thirty to forty ounces of fluid.

March 5.—Any operation was unadvoidably postponed.

March 12.—Aspirated twenty-six ounces of fluid same as before. Continue *Ars., Iod.*

March 19.—"Urine diminished to about eight ounces *per diem.* Does not feel so well. Girth is again 41 inches at umbilicus. Aspirated 125 ounces of fluid, like the last. Used the new pen-shaped trocar and canula for the first time in this case. This instrument makes an efficient current with the syphon-tube. Its insertion is less painful than a No. 3 or 4 needle. I used it the day before (18th March) in Mrs ——'s case (V.), with equal satisfaction to the patient and myself.

March 26.—Aspirated some eighty ounces.

April 2.—Aspirated 108 ounces.

April 9.—Aspirated 84 ounces of fluid by myself, without assistance, as Mr Miles could not come.

April 17.—Removed about eighty ounces of fluid. I did not see the patient again, as stated in beginning of this history. I have no further remarks to make, except that she promised, as before stated, to come the following week—and did not, and did not answer my note of inquiry. The fluid aspirated remained much the same all the way through. This is quite different to the results of the ordinary tapping operation. It is probably owing to the harmlessness of the puncture and to the impossibility of air entering into the cyst by its means. The urine did not increase in quantity after operation, as it often does, and did in Case V.

The medicines given during the progress of this case were as follows:—*Arsen., Iod. Arsenicum album, Apis m.*

CHAPTER XI.

Some Remarks on Prolapsus Uteri and Pessaries.

BEARING-DOWN and prolapsus of the womb are two common affections of women. They give rise to so much suffering, and are often so intractable to treatment, that I think the reader will not be displeased if I make a few remarks upon the treatment which I have found most effectual in their case.

Prolapsus uteri is, I need hardly explain, a displacement bodily of the whole uterus downwards and forwards into or through the vagina.

It may happen in more ways than one. Most frequently it does so as the result of a difficult labour. Sometimes, however, it happens after repeated easy labours, and especially so in the case of delicate women of leuco-phlegmatic temperament. Very frequently a leucorrhœal discharge is accompanied by bearing-down and prolapsus.

In cases where the prolapsus is slight, and where the leucorrhœa and bearing-down are the prominent symptoms, medicines that exercise a specific action on the female organs of generation—such as the *Pulsatilla nigricans*, *Trillium pendulum*, *Actæa racemosa*, and perhaps, in some cases, preparations of the cuttle-fish (*Sepia succus*), conjoined with rest and astringent injections, are sufficient to effect a cure. If, however, the womb comes down to an appreciable extent, it will be impossible to afford adequate and tangible relief without the assistance of a pessary. Of instruments for keeping up the uterus (*i.e.*, pessaries) there are an almost endless supply. Almost every authority on female diseases has some pessary called by his name. It would be simply waste of time, however, to go into their merits in detail. They are divisible into two classes; those which get their basis of support within the body (vagina), and those which get it externally. I will merely state here, that, in my opinion, the principle of external support is by far the better one. To show this I have selected a few illustrative cases from my note-book, in which internal pessaries had failed, and where prompt and effectual relief was afforded by the other kind.

I am aware that there is a tangible objection to Coxeter's and similar pessaries, and that is on the ground of expense. Externally supported pessaries are of necessity dearer than the simple wooden ring and guttapercha-covered wire pessaries.

Of the many internal pessaries, there are two kinds that are specially objectionable, although for different reasons. These are the kind last named and the inflated ball ones. The guttapercha-covered wire ring kind is, I believe, the general favourite now in hospital practice. Besides being cheap, it is an useful pessary, as it can be bent and its form altered to suit the particular circumstances of each case. It is open, however, to two objections. In the first place, it is designed on a wrong principle; and, in the second, it can only be applied, and not seldom only removed, by a medical man. One consequence of this last is, that it may remain so long *in situ* that its covering decays, and the rusty wire presses upon, and even eats into, the adjacent parts. I have in several cases removed the wire pessaries in this condition during the last two years, which had been applied between three and six months before at public institutions, the patient having either failed to return or been unable to remove the instrument. The inflated ball pessaries are objectionable for other reasons. First of all, they do not give effective support to the womb; in the second place, they press upon the neighbouring parts, and dilate the vagina; the consequence of this last quality being that the patient's tendency to prolapsus is increased instead of being diminished, which it should be by the natural contraction of the vaginal walls when the uterus is well supported.

A pessary is like a truss in two ways. Both, when well made and fitting, and properly applied, afford valuable and necessary support in case of need. Both thus contribute to the comfort and happiness of their wearers. Both, when ill-made, ill-fitting, and badly applied, are sure to be sources of discomfort, generally of pain, and oftentimes of danger.

The following case is a good illustration of what I have just stated, at least inasmuch as pessaries are concerned:—

CASE XII.—*Bad Case of Prolapsus Uteri: Effects of Bad and Good Pessaries.*

Mrs P., æt. 25, consulted me, at the instance of her husband (who had been under my care for most obstinate costiveness and constipation, which I removed by interdicting the free drinking of "hard" water), on 3d July 1875, for most painful bearing-down and prolapsus of the womb. She had been treated for this affection by her usual medical attendant, a practitioner at a village close to Blackheath; also, in consultation, by two eminent physicians. One of these* had tried to keep the uterus up with different kinds (some five or six) of pessaries, but, unfortunately, had failed to do so. I was fortunate enough to succeed on the first attempt. The pessary employed was one which is known as Coxeter's, and indeed was made by its inventor. It was, I need hardly say, a properly made one, a circumstance of considerable importance. Indeed, although the last pessary applied was nominally a "Coxeter," in reality it was something quite different. I have it now on the table by me, and a wretched instrument it is.

If the reader has ever seen a properly made instrument of this kind, he will probably be as much surprised, when he learns how this one was made, as I was when I saw it. In the first place, the cup-shaped end of the stem that receives and supports the cervix uteri had no elastic cap; the consequence of this omission was, that the part just named rested upon the hard, almost sharp, edge of the inner ring of the cup. Then the other or external end of the stem was not securely fixed to the supporting bands; thus allowing the stem to rotate on its own axis. The consequence of this second fault was, that the least unusual movement on the patient's part unshipped the cervix, which then came down, and was strangulated by the very thing that should have supported it. To complete the list of this individual pessary's faults, I have only to mention that the thick round elastic bands of the proper instrument that embrace and support the stem externally, were replaced by miserable thin, elastic bands, like the stuff that cheap elastic garters are made of. The consequence of this last fault was twofold: either sufficient support could not be afforded by the bands to the stem, to prevent its forcible ejection by the bearing-down of the womb, or else, when pulled sufficiently tight to fulfil their purpose, they so cut the patient that she could not bear the pain.

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* The gentleman referred to on page 62 in reference to a case of traumatic ventral hernia.

Immediately after my application of the proper instrument—the real "Simon pure"—the patient got up, nursed her baby, a heavy child nearly a year old, and made tea: two things that she had been unable previously to do for some time. I have since 5th August heard from the lady's husband, that his "wife finds it of use in securing her against prolapsus," but that he thinks the elastic bands are hardly strong enough. If the latter be the case it admits of an easy remedy. It is more probable, however, that the patient has not applied the instrument properly.

Since the foregoing was put in type, Mr P. has called upon me. It seems that the patient had been from unavoidable circumstances obliged to do a good deal of heavy lifting; this explains the excessive bearing-down. There has been no leucorrhœal discharge since she has worn this last pessary. A properly constructed and adapted, and externally supported pessary, indeed, seldom causes any. It is probable that the leucorrhœa she had had, whilst wearing the pessary above commented on, was due to the contact of the os with the hard inner ring of the cup, causing irritation. The elastic caoutchouc cap of the one she now wears prevents this happening.

CASE XIII.—*Prolapsus Uteri. Case that occurred to a late Colleague.*

I heard lately of a somewhat similar case that happened in the practice of my late brother, Dr G. N. Epps, some fifteen years ago. The patient was a hard-working, middle-aged woman—a laundress, I believe. She had been, previously to the application by my brother of one of these pessaries, unable to pursue the active part of her business; and this although she had had a good many different sorts of pessaries applied by an eminent London obstetrical professor. She was seen afterwards carrying two pails of water, and that without any particular inconvenience.

CASE XIV.—*Bad Prolapsus Uteri: An Effective Pessary.*

E. W., æt. 40, mulatto. Bad case of lateral spinal curvature. The pelvis is also badly shaped, being far too narrow, and, in a word, ill-developed. Had a child before she was 20. It was not, however, born alive. The womb came down so much that the entire cervix was protruded. She had had several pessaries applied at different hospitals, but without any good effect. She acted as housekeeper at a small house of business, but, though the duties were very light, she was obliged to have a deputy to perform them. At the time of consultation, she kept it partly up with a sponge and napkin. Not only was this, however, not effectual as a support, but a leucorrhœa, to which she was subject, made it a source of annoyance and local irritation. I had to have a special instrument made for her, on account of her deformity. I remember that her girth at the waist was only 21 inches; also that I had to have a stem made of little more than half the ordinary length, but with a somewhat oval and deeper cup than usual. I have only to add, that the pessary was a complete success; also that she was able afterwards to perform her duties without assistance.

By the same Author.

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